



# Analysis of the federal tax reform proposals.

Department of Treasury and Economics  
Taxation and Fiscal Policy Branch



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Ontario Studies In Tax Reform I

ANALYSIS OF THE FEDERAL  
TAX REFORM PROPOSALS

Staff Paper



Department of Treasury and Economics  
Taxation and Fiscal Policy Branch  
Ontario



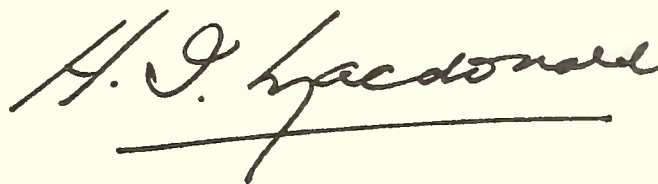




## PREFACE

This study contains the results of an extensive computer analysis by the Ontario Government of the federal Proposals for Tax Reform of 1969. The study presents estimates of the effects of the proposed changes on individual and corporate taxpayers, and government revenues. The study is based on the use of a computer program for analyzing income tax changes, which was developed and refined in the Ontario Government from the model originally designed by Professor John Bossons for the Carter Commission in 1966. The results of the study are not presented as final and conclusive. They represent one stage in our continuing analysis of the proposed tax changes.

The development of the Ontario tax analyzer system and preparation of this study was undertaken in the Taxation and Fiscal Policy Branch, Ontario Department of Treasury and Economics. We wish to acknowledge the major contribution of Professor John Bossons, who acted as senior adviser throughout the project, and Mr. John Tysall. They were assisted by many other staff members. The study is part of a broader program of taxation research being conducted in the Branch.

A handwritten signature in dark ink, reading "H.I. Macdonald". The signature is written in a cursive style with a long horizontal line extending from the end of the name.

June 1970

H.I. Macdonald,  
Deputy Treasurer and  
Deputy Minister of Economics



## CONTENTS

### CHAPTER

#### 1. INTRODUCTION AND SUMMARY

- 1.1 Revenue Yield and Incidence of the White Paper Proposals
- 1.2 Comparison with Federal White Paper Estimates

#### 2. METHOD OF ANALYSIS

- 2.1 Description of Sample
- 2.2 Analytic Procedure

#### 3. CHANGES IN TAXES ON CORPORATIONS, INSTITUTIONS AND NON-RESIDENTS

- 3.1 Changes in Corporation Income Tax
- 3.2 Changes in Corporate Retained Earnings
- 3.3 Changes in Taxes on Institutions and Non-Residents

#### 4. EFFECTS OF CHANGES IN TAX RATES AND IN CONCESSIONARY ALLOWANCES

- 4.1 Effect of Changed Tax Rates and Exemptions on Current Tax Base
- 4.2 Changes in the Treatment of Spouse and Dependents' Income
- 4.3 Income Averaging
- 4.4 Personal Financing of Medical Expenses
- 4.5 Taxing Scholarships and Fellowships

#### 5. CHANGES IN TAXES ON EMPLOYMENT INCOME

- 5.1 Tax Effects of the Proposed Standard Employee Expense Allowance
- 5.2 Taxation of Personal Benefits
- 5.3 Changed Treatment of Employer Contributions for Public Medical Plans
- 5.4 Incorporation of Net Income from Unemployment Insurance
- 5.5 The Effect of the Proposed Working Mother Deductions



## CHAPTER

### 6. TAX CHANGES ON INCOME FROM CORPORATE EQUITIES

- 6.1 Types of Corporate Income
- 6.2 Cash Distributions Received by Resident Individuals
- 6.3 Shareholder Income Before Personal Income Taxes
- 6.4 Effect of Integration
- 6.5 Taxes on Capital Gains
- 6.6 Summary of Tax Changes on Shareholder Incomes

### 7. CHANGES IN TAXES ON OTHER BUSINESS AND INVESTMENT INCOME

- 7.1 Taxes on Capital Gains Other Than on Corporate Stock
- 7.2 Changed Treatment on Rental Income
- 7.3 Miscellaneous Changes

### 8. THE OVERALL REVENUE AND INCIDENCE OF THE PROPOSALS

- 8.1 Total Change in the Revenue Yield of the Personal Income Tax
- 8.2 The Incidence of Personal Income Tax Changes Resulting from the White Paper Proposals
- 8.3 Changes in Direct Taxes Allocable to Canadian Individuals

## APPENDIX

### A RELATIONSHIP OF SAMPLE TO CANADIAN TAX RETURN POPULATION

- A.1 Introduction
- A.2 Derivation of the Ontario to Canada Adjustment Factor
- A.3 Additional Adjustments

### B ASSUMPTIONS UNDERLYING ANALYSIS OF CHANGES IN THE PERSONAL INCOME TAX

- B.1 Processing of the Tax Return Sample
- B.2 Changes in Tax Rates and in Concessionary Allowances
- B.3 Changed Treatment of Employment Income and Expenses
- B.4 Estimating Procedure for Tax Changes Affecting Corporation Source Income
- B.5 Changes in Taxes on Other Investment Income

## APPENDIX

### C AN ALGEBRAIC SUMMARY OF RELATIONSHIPS AMONG COMPONENTS OF INCOME FROM COMMON STOCKS

C.1 Major Components of Accrued Income Before Personal Income Taxes

C.2 A Digression on Earnings Growth and Real Goodwill Gains

C.3 The Effect of Untaxed Corporate Income

C.4 Effect of Integration Upon the Personal Income Tax Base

C.5 The Effects of Corporate Tax Changes

### D ALLOCATION OF INCOME ACCRUED BY CORPORATIONS AMONG DIFFERENT INVESTORS IN 1964

### E EXTRAPOLATION PROCEDURE

E.1 Introduction

E.2 Growth Factors

E.3 Adjustment for Low Income Tax Returns

E.4 Adjustments for Bond and Bank Interest and Annuity Income Reporting Changes

E.5 Deductions



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## CHAPTER 1

### INTRODUCTION AND SUMMARY

It is of little value to discuss the effects of a set of tax reform proposals without having a relatively detailed and accurate set of estimates of the revenue yield and incidence of the tax changes that would result from the reform proposals. This is particularly so in the case of a relatively complex set of proposals such as those advanced in the federal government white paper on tax reform.<sup>1/</sup> Without relatively detailed estimates of the initial impact of the tax reform proposals on the distribution of income and on the taxation of different types of income, it is impossible to discuss either the economic or redistributive effects of the proposals with any accuracy.

The purpose of this monograph is to provide some detailed estimates of the incidence as well as revenue yield of the white paper tax reform proposals.

In this chapter, the overall results of our analysis are summarized and compared with earlier estimates presented by the federal government white paper. Subsequent chapters and appendices present the details of our estimates.

#### 1.1 The Revenue Yield and Incidence of the White Paper Proposals

The federal government proposals would result in a substantial increase for Canadian individuals and corporations. Our estimates of the changes in tax revenues resulting from the federal government's proposed tax reforms are presented in Table 1-1. The total tax increase would amount to close to \$1.5 billion.

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<sup>1/</sup> Proposals for Tax Reform, tabled in the House of Commons by the Honourable Edgar J. Benson, Minister of Finance, November 7, 1969.

How one measures the impact of a set of tax reform proposals is a matter that is somewhat arbitrary. The estimates presented in Table 1-1 are of what the proposed tax system would have yielded in 1969 had it been in effect sufficiently long prior to 1969 to be fully effective. From many points of view, it would be both more realistic and more relevant to estimate what the effects of the federal white paper tax reforms would be in future years as they became implemented. We have chosen to use 1969 as the basis for our estimates partly in order to obtain estimates whose magnitude can easily be judged relative to current tax revenues and partly to obtain estimates which are as comparable as possible to those presented earlier by the federal government.

The tax increase implied by the federal white paper proposals would fall heavily upon investment income, and would consequently have important economic effects. As Table 1-1 indicates, 65 per cent of the tax increase would result from increases in the yield of the corporation income tax. A majority of the additional taxes which would be raised by the white paper tax reform proposals would also fall on investment income.

Though corporations would bear the heaviest initial brunt of the tax increase proposed by the white paper, a substantial tax increase would also be faced by many individuals paying personal income taxes. The percentage change in personal income taxes as well as in all direct taxes allocable to resident individuals is shown in Chart 1 for resident individuals classified by income. As this chart indicates, individuals in all but the lowest income ranges would face tax increases.

To some extent, the changes in taxes portrayed in Chart 1 reflect a redistribution of income from upper and middle income individuals with low incomes. However, the redistributive transfers to low income individuals brought about by the white paper account for a

Table 1-1CHANGE IN 1969 TAX REVENUES RESULTING  
FROM THE FEDERAL WHITE PAPER TAX REFORMS

(millions of dollars)

	Current Revenue	Ontario Estimate of the Revenue Increase from the White Paper	Percentage Change
Corporation income tax	2,633	963	36.6
Withholding taxes on non-residents	210	-3 )	
		)	
Other taxes on institutions and non-resident investors	-	110 )	50.6
Personal income tax	7,304	402	5.5
TOTAL	10,147	1,472	14.5

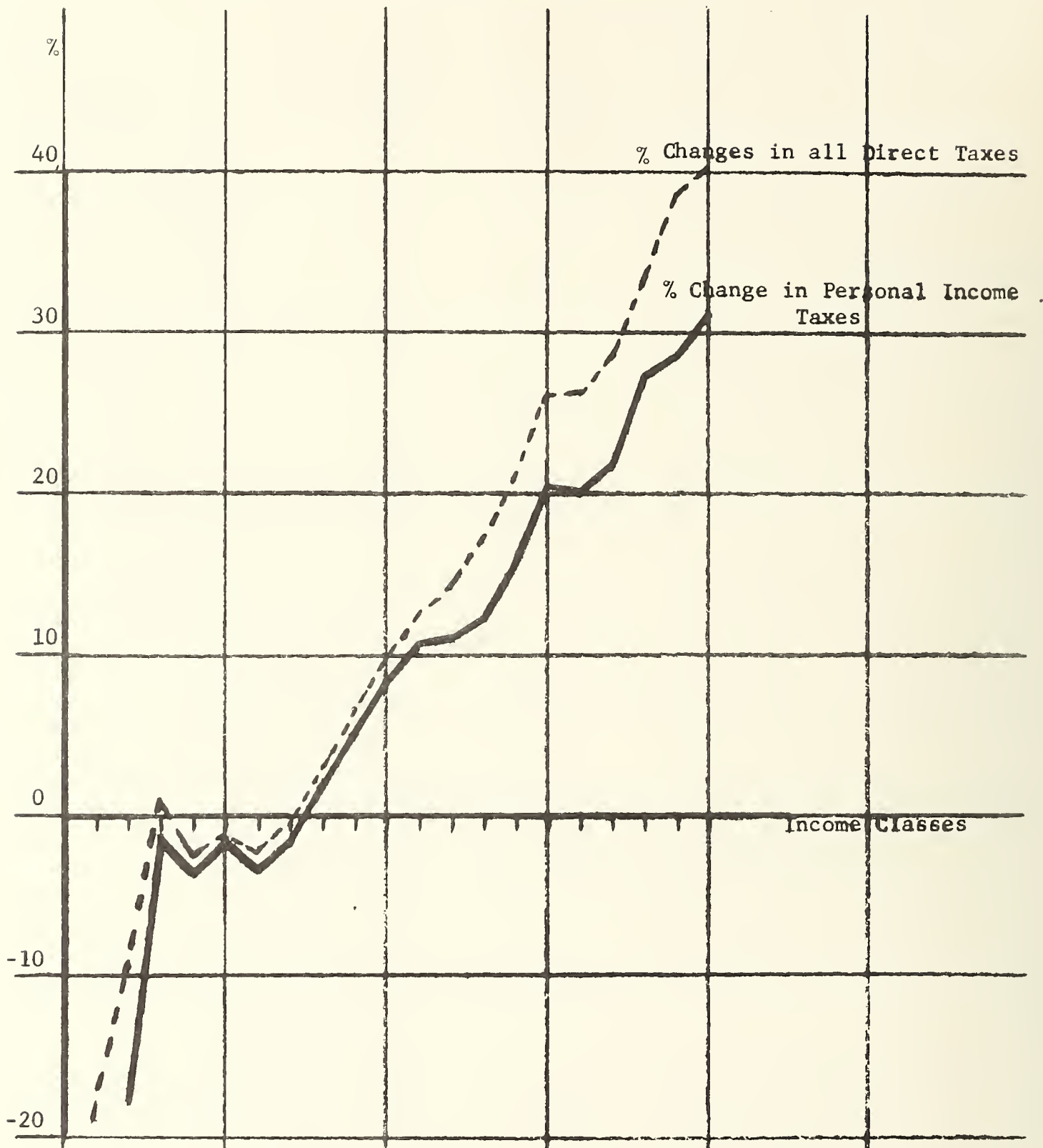
Sources: Tables 3-2, 3-4, 3-7, 8-1 and 8-2.

Notes: All taxes include both federal and provincial taxes,  
including Old Age Security taxes. For other notes,  
see the source tables cited.



Chart 1

PERCENT CHANGE IN TAXES ALLOCABLE TO  
INDIVIDUALS, RESIDENT IN CANADA, 1967,  
RESULTING FROM WHITE PAPER PROPOSALS



Source: Tables 8-3 and 8-5.

Note: Income classes are as defined  
in Table 8-3.

relatively small proportion of the tax increases faced by other individuals with higher incomes. The bulk of the tax increase proposed for middle income groups by the white paper would go to finance an approximately 10 per cent increase in the size of the government sector.

## 1.2 Comparison with Federal White Paper Estimates

An earlier set of estimates of the revenue effects of the federal government's tax reform proposals was presented in the federal white paper.<sup>1/</sup> A comparison of Ontario's estimates with the federal estimates is presented in Table 1-2.

In looking at Table 1-2, it is worthwhile emphasizing that both sets of estimates are constructed on essentially the same basis. Both the Ontario estimates and the white paper estimates are primarily based on 1967 data. Both estimates are of what the effects of the proposed tax reforms would have been in 1969, assuming the tax reforms to have been fully effective as of that date, and assuming the composition and distribution of 1969 before-tax incomes to have been unaffected by the tax reforms. We have focused on what the effects would be measured in 1969 terms, rather than on the more relevant question of what the actual effects of the tax reform proposals would be through the 1970s as the reforms become effective. We did this, primarily in order to put our estimates on the same basis as those of the white paper.

Beyond this, the procedure underlying the construction of both sets of estimates was essentially the same. Estimates of tax changes affecting corporations and non-resident investors were based on detailed aggregate data for different industries published by the Dominion Bureau of Statistics. Estimates of the effects of tax changes on individuals were obtained by analyzing what the effects

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<sup>1/</sup> Proposals for Tax Reform, *ibid.*

Table 1-2

COMPARISON OF ONTARIO ESTIMATES OF 1969 REVENUE  
INCREASES WITH THOSE PRESENTED IN THE WHITE PAPER

(millions of dollars)

	<u>Ontario Estimates</u>	<u>White Paper Estimates</u>	<u>Difference</u>
Corporation income tax	963	560	403
Withholding taxes on non- residents	-3	--	-3
Other taxes on non-resident investors	110	--	110
Personal income tax	402	70	332
	<u>          </u>	<u>          </u>	<u>          </u>
TOTAL	1,472	630	842
	<u>          </u>	<u>          </u>	<u>          </u>

Source: Table 1-1; Department of Finance, Proposals for Tax Reform, (Ottawa, Queen's Printer, 1969) Tables 15, 16 and 17.

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Source: Table 1-1; Department of Finance, Proposals for Tax Reform, (Ottawa, Queen's Printer, 1969) Tables 15, 16 and 17.



of the proposals would have been for each tax return of a large sample of tax returns collected by the Department of National Revenue. While the samples used in obtaining the two estimates differed, these differences are unlikely to account for any significant fraction of the difference between the two estimates.<sup>1/</sup> Indeed, a comparison of some of our detailed underlying estimates with some corresponding estimates furnished by officials of the federal government suggests that differences between the estimates arising from sampling differences are highly insignificant, relative even to the small sampling variability of the estimates. The differences between the two sets of estimates arise from differences in assumptions and from the omission of the effects of certain reforms in the federal government's estimates; they are not attributable to differences in the data used.

The major sources of the differences between our estimates and those presented in the white paper are summarized in Table 1-3, in which they are classified by the type of difference. The effects of certain reforms are omitted from the white paper estimates; the effect of correcting for these omission is to add \$518 million to the revenue yield of the white paper proposals. Certain other reforms are included in the white paper estimates only on a notional basis. That is, their effects have apparently been estimates by putting an

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<sup>1/</sup> The sample which we used was larger, including 195,000 tax returns as opposed to the sample of 100,000 1967 tax returns used by the federal government in preparing their estimates. On the other hand, our sample was restricted to tax returns filed by Ontario residents, and was therefore not a wholly random sample of the Canadian taxpaying population. Our procedure for estimating Canadian totals from an Ontario-based sample is described in Appendix A; in effect, we classify both the Canadian population and our sample respondents by age, income, and taxpaying status and assumed that our sample was a random sample of the population within each of these subgroups. Tests of this procedure indicated that the resultant estimates of tax changes for all Canadian resident individuals were not significantly different from corresponding estimates obtained using the federal government's tax sample in cases where the same calculation procedures were followed.

arbitrary, small number into the estimates. The effect of obtaining more accurate estimates of these effects is to add \$95 million to the revenue yield of the proposals. In the third category are reforms of the personal income tax which have been estimates by the federal government using individual tax return data, but for which the white paper estimates differ substantially from our own. Fourthly, there is the effect of provincial surtaxes that are ignored in the white paper estimates; the effect of correcting for this omission is to add another \$50 million to the revenue yield of the tax reform proposals. A number of minor differences account for the remaining discrepancy.

As Table 1-3 indicates, all but \$179 million of the difference between our estimates can be attributed to errors of omission in the white paper estimates. These errors of omission thus account for almost 80 per cent of the total difference. To put this in other terms, the effect of the omissions in the white paper estimates is to ignore a revenue increase of \$663 million, equivalent to 6.6 per cent of the current revenue yield of the reformed taxes.

Of the remaining \$179 million difference, \$25 million is accounted for by minor differences which are of the magnitude attributable to sampling variability or to reasonable differences in assumptions. The reform effects for which serious differences in assumptions exist thus account for only 18 per cent of the total difference between our revenue estimates and those presented in the white paper.

Of these serious differences, the most important have to do with the effect of integration and the effect of taxing capital gains. The federal white paper estimates of the effect of taxing capital gains are in part based on plausibly different assumptions about behavioural responses to the proposed tax reforms. But in part, they seem to understate the revenue loss resulting from the lack of deemed realisation at death for capital gains on private

Table 1-3

MAJOR SOURCES OF THE DIFFERENCE BETWEEN  
ONTARIO ESTIMATES AND THE WHITE PAPER ESTIMATES  
(millions of dollars)

	<u>Ontario Estimates</u>	<u>White Paper Estimates</u>	<u>Difference</u>
<u>Reforms omitted in the federal government estimates:</u>			
Changes in tax incentives to operating companies in the mineral industries	173	-	173
Constructive realization of net realized gains on shares of widely-held companies owned by corporations	144	-	144
Taxes (other than withholding taxes) on non-resident investors	110	-	110
Taxation of medicare premiums paid by employers	91	-	91
<u>Reforms included in the federal government estimates only on a national basis:</u>			
Taxation of top employee benefits, including expense account benefits	77	17	60
Changed treatment of medical expenses, including adjustment for effects of public medicare plans	41	6	35
<u>Reforms for which the federal government's estimated effect seriously differs from our estimates:</u>			
Elimination of the lower rate of tax on the first \$35,000 of taxable income of corporations	427	390	37
Effect of integrating the personal and corporation income taxes in the manner proposed by the white paper	-102	-230	128
Taxation of capital gains of individuals, including the effect of constructively realizing goodwill gains on shares of widely-held companies every five years	274	345	-71
Child care allowance	-14	-95	81
Changes in the personal income tax rates schedule and exemptions (including changes in the treatment of dependent's income)	175	215	-40

Table 1-3 (cont'd.)

**MAJOR SOURCES OF THE DIFFERENCE BETWEEN  
ONTARIO ESTIMATES AND THE WHITE PAPER ESTIMATES  
(millions of dollars)**

	<u>Ontario Estimates</u>	<u>White Paper Estimates</u>	<u>Difference</u>
<u>Effect of provincial surtaxes ignored in the federal estimates:</u>			
Additional revenue from the white paper proposals affecting corporations resulting from provincial surtaxes	41	-	41
Additional revenue from the application of provincial surtaxes to additions to the personal income tax base	9	-	9
<u>Other differences:</u>			
Cancellation of depletion allowance for corporate non-operators	21	10	11
Other changes in corporation income tax revenue	158	160	-2
Provisions for employee expenses	-247	-235	-12
Other changes in the taxation of employee income	59	45	14
Changes in taxation of rental income	40	27	13
Elimination of shareholder depletion allowances	9	15	-6
Other changes in personal income tax revenue	-10	-40	30
Changes in withholding taxes	<u>-3</u>	<u>-</u>	<u>-3</u>
<b>TOTAL</b>	<b><u>1,472</u></b>	<b><u>630</u></b>	<b><u>842</u></b>

Sources: Tables 3-2, 3-4, 3-7, 8-1 and 8-2.

Note: All taxes include both provincial and federal taxes.  
Figures may not add to totals because of rounding.



company shares and on non-corporate assets. The federal estimates of the effect of integration seem difficult to explain. Certainly the differences are not due to differences in basic assumptions. As is reported in Chapter 6 below, we have performed several tests of the sensitivity of our estimates to different assumptions; the results of some of these tests indicate that our estimates, if anything, err in the direction of understating the increase in tax revenues resulting from changes in the taxation of corporate source income under the personal income tax.

Additional important differences arise with respect to changes in personal income tax rates and to the establishment of an allowance for child care. Of these, the first difference seems to be due primarily to procedure for extrapolating the numbers of tax returns; the second, to a substantial overstatement of the income of working mothers and the expenses incurred for child care by working mothers in the white paper estimate.

Because of the importance of the difference between the federal white paper estimates and our estimates, we have devoted considerable attention in this monograph to an analysis of underlying data as well as to the results of our calculations. In areas where differences are substantial, we have attempted (in some cases without success) to find ways of reconciling our estimates with those presented in the federal white paper. It is hoped that the publication of this document will stimulate other analysts to examine our detailed assumptions and to find ways of improving upon our estimates.



## CHAPTER 2

### METHOD OF ANALYSIS

This chapter describes the analytic procedures used to derive the estimates presented in this monograph. Estimates of the effect of the white paper on revenues from corporations, other institutions, and from the income of non-residents were derived from a detailed analysis of the taxation and financial data available from Dominion Bureau of Statistics. Chapter 3 presents the results of the analysis in detail.

The estimation of revenue effects for personal income taxes is a more complex operation due to the many interdependencies existing between reforms. Our estimates were made using a large sample of taxpayers and a computer model capable of detailed revenue and incidence analysis of the changes in the personal income tax resulting from the white paper. The rest of the chapter briefly describes the sample and the analytical procedure used.

#### 2.1 Description of Sample

The sample used was the 1967 Ontario subsample of the 1967 Canadian Taxation Statistics Sample obtained from the Department of National Revenue, Ottawa.<sup>1/</sup> To provide estimates of revenue effects for Canada 1969 the number of returns in the Ontario sample were adjusted upwards by special adjustment factors based on the relationship of Ontario to Canadian taxpayers in different age, income and taxpaying status classes.<sup>2/</sup>

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<sup>1/</sup> A description of the derivation and statistical coverage of this sample is given in Department of National Revenue, 1969 Taxation Statistics. (Ottawa: Queen's Printer, 1969), page 155.

<sup>2/</sup> The derivation of the adjustment factors is described in Appendix A of this document.

The sample comprised 195,538 Ontario tax returns for 1967 unidentified by taxpayer and selected according to the following criteria: type of tax return (T1 General or T1 Short), the district office where the return was filed, and the net assessable income reported on the return.

A subsidiary computer analysis designed to ensure that the data was comparable to published aggregate taxation statistics for Ontario showed a deviation of 0.5 percent on the number of tax returns and 0.3 percent on total reported assessable income.

To reduce the number of calculations, the 195,538 returns were classified by criteria such as income, family and marital status, number of dependants, age, occupation, sex, etc. This classification was used to group similar tax returns together thus reducing the number of records processed from 195,538 to 122,244 by aggregating tax returns of similar characteristics. The initial data-processing procedure also abstracted the information on individual tax returns into 63 data items for each tax return group.<sup>3/</sup>

## 2.2 Analytic Procedure

The analytic procedure is to read in the sample of tax returns, calculate taxes for each individual under the present and proposed tax systems, aggregate this information for all individuals and print out a set of tables showing the effects of the proposed tax changes for the total number of individuals within the sample.

The information derived from each tax return includes the 63 data items such as income from each of a number of different sources, number of dependants, deductions, and so forth.

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<sup>3/</sup> The classification indices and data collected from the sample records are described in John Bossons, The GITAN/Level 6 Tax Analyzer Program, (Toronto: Department of Treasury and Economics), 1970, Appendices D and E.



## CHAPTER 3

### CHANGES IN TAXES ON CORPORATIONS, INSTITUTIONS, AND NON-RESIDENTS

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Many of the most important effects of the proposals for tax reform advanced by the federal government's white paper affect the tax treatment of corporate source income. Some of these changes occur at the corporate level through changes in the corporation income tax. Others affect the tax treatment of income received from corporations by investors or accrued on shareholdings in corporations.

The purpose of this chapter is to present estimates of the impact of all changes in taxes affecting corporate source income other than those changes arising from revision of provisions in the personal income tax affecting the tax treatment of income accrued by resident individual shareholders. (The impact of changes in personal income tax provisions affecting shareholder income accrued by resident individuals is discussed in Chapter 6.) In the first section of this chapter, we present estimates of the change in revenues from the corporation income tax in 1969 that would have resulted had the proposed tax system been fully effective at that time in place of the current tax system. In the second section, we discuss the impact of these tax changes upon earnings retained by corporations. In Section 3.3, the effects of the white paper's tax reform proposals upon institutions other than those included in the corporate sector is discussed. The impact of the white paper proposals on income accrued on investments of all types by non-residents is discussed in this section.

It is worth re-emphasizing what has already been stated in Chapter 2 regarding the nature of our estimates. While we from time to time discuss some of the economic implications of the tax changes estimated in this monograph, the estimates of the dollar magnitude of the tax changes themselves are impact estimates that ignore behavioural

adjustments.<sup>1/</sup> In addition, the estimates assume that the proposed tax system had been in effect for a sufficiently long period of time prior to 1969, the year for which our estimates have been made, to make all provisions of the proposed tax system fully effective. Like the white paper, the estimates are of the total change in taxes that would be paid by taxpayers, whether paid to provincial or federal governments.

While the choice of any particular year in terms of which to examine the impact of the white paper proposals is obviously somewhat artificial and arbitrary--perhaps particularly so in the case of 1969, which is two years before any part of the white paper tax reform proposals could become effective--it is worth noting the importance from an economic point of view in taking all of the proposed reforms affecting corporate source income into account. The economic effects of any tax reform will be materially determined by savings and investment decisions that reflect the capitalization of the effects of tax changes on after-tax income in both the near and distant future. Indeed, because of the way in which most expectations are formed, it is likely that short-term expectations regarding the impact of the tax changes in the near future will be materially affected by tax changes whose primary effect is on income in subsequent periods. To put this in different terms, transitory effects tend to be ignored in forming expectations. The critical tax impact effects from the point of view of their effect on subsequent behavioural adjustments is the full impact of all of the tax reform provisions, ignoring initial transition effects.

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<sup>1/</sup> Some of the likely economic effects of the changes in tax payments estimated in this monograph have been described elsewhere. Cf. the comments in John Bossons, "The Effect of Tax Rates upon the Impact of Tax Reform: The White Paper vs. an Alternative," Proceedings of the 22nd Tax Conference (Toronto: Canadian Tax Foundation, 1970), and A.R. Dobell and T.A. Wilson, "The Effects of the White Paper on Savings, Investments, and Economic Growth," ibid. The estimates presented in both of these papers are based on preliminary versions of the revenue estimates presented in this monograph.

### 3.1 Changes in Corporation Income Tax

Changes in the corporation income tax account for by far the largest part of the additional revenue resulting from the tax reforms proposed by the federal government's white paper. The most important reforms proposed by the white paper in the corporate area are the taxation of capital gains on corporate assets, the curtailment of tax preferences currently extended to the extractive industries, and the elimination of the lower rate of tax on the first \$35,000 of taxable income.

A comparison of the proposed tax base with the current tax base of the corporation income tax is presented in Table 3-1. The estimates presented in this table show what the effects of the more important tax reforms would have been had they been fully effective in 1967. In being based on the actual distribution of income, expenses, and untaxed accruals over different types of companies in 1967, these estimates ignore any adjustment in business behaviour caused by the tax reforms which might change the distribution of income and expense items in future years. In addition, through providing estimates of what the effects of each reform would have been had it been fully effective in that year, the estimates provide a realistic representation of the revenue gains resulting from the tax reforms only after a number of years have passed since implementation of the reforms. In effect, the estimates presented in Table 3-1 are of what the white paper tax system would have yielded in 1967 had it been enacted, say, between 1957 and 1960 and had it had no effect on the income producing activities of corporations.<sup>2/</sup>

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<sup>2/</sup> In point of fact, one would expect some behavioural reactions by corporations that would have a progressively increasing impact on before-tax incomes. Based on estimates presented elsewhere, one would expect the white paper reforms to have a somewhat negative effect on corporate savings and investment, and in addition to change the average rate of return on investments that were undertaken. Some estimates of the extent of this impact are presented in A.R. Dobell and T.A. Wilson, "The Effects of the White Paper on Savings, Investment, and Economic Growth", op. cit. Based on these estimates, it may be assumed that these effects would have caused before-tax corporate income to be approximately 3 to 5 percent lower in 1967 than it would otherwise have been, assuming the tax reforms to have been in force for approximately a decade; this reduction would be concentrated particularly in the extractive industries.



Table 3-1

CURRENT AND PROPOSED TAX BASE UNDER  
THE CORPORATION INCOME TAX, 1967  
(millions of dollars)

	<u>Companies in Extractive Industries</u>	<u>Banks, insurance companies, and trust and mortgage companies</u>	<u>Other Companies</u>	<u>Total</u>
Current year taxable profits under 1967 tax law	326.4	280.2	4,715.4	5,322.0
Less: prior year losses deducted	<u>7.9</u> 318.5	<u>2.5</u> 277.7	<u>294.8</u> 4,420.6	<u>305.2</u> 5,016.8
Plus: effect of 1968 tax changes	<u>--</u>	<u>120.0</u>	<u>--</u>	<u>120.0</u>
CURRENTLY-TAXABLE INCOME	318.5	397.7	4,420.6	5,136.8
<u>Proposed additions to tax base:</u>				
Realized capital gains less capital losses	31.3	20.8	110.4	162.5
Constructive realization of net unrealized gains on widely-held companies	44.3	73.4	126.2	243.9
Allowance for surtax on dividends from widely-held companies received by closely-held companies	15.2	--	86.7	101.9
Exempt mining income	212.0	--	1.4	213.4
Revision of depletion allowance for operators	77.5	--	2.0	79.5
Elimination of depletion allowance for non-operators	--	3.0	32.7	35.7
New rules for deducting exploration and development expenses by companies whose principal business is not in the extractive industries	--	--	-20.0	-20.0
Other additions (net)	<u>0.3</u>	<u>0.3</u>	<u>24.4</u>	<u>25.0</u>
PROPOSED ADDITIONS	<u>380.6</u>	<u>97.5</u>	<u>363.8</u>	<u>841.9</u>
PROPOSED TAX BASE	<u>699.1</u>	<u>495.2</u>	<u>4,784.4</u>	<u>5,978.7</u>

Notes:

- For the most part, estimates presented in this table are based on data in Dominion Bureau of Statistics, Corporation Taxation Statistics, 1967 (Ottawa: Queen's Printer, 1969), Tables 2 and 8. The extractive industries are defined to include mining, iron and steel mills, and petroleum refineries. Estimates for banks, insurance companies, and trust and mortgage loan companies are obtained from data for all "finance" companies in ibid., Tables 2 and 8, prorated between these companies and other "finance" companies based on data on currently taxable incomes and adjusted to reflect other available data on non-tabulated insurance companies.
- The estimated effect of tax changes introduced in 1968 is obtained from an unpublished estimate, adjusted to reflect 1967 incomes. All but \$24 million of the addition to the tax base is assumed to be allocable to non-tabulated insurance companies.

Notes to Table 3-1 (cont'd)

3. Realized gains less realized losses are taken directly from Corporation Taxation Statistics 1967, op. cit. Constructively-realized net goodwill gains on widely-held companies' stock held by corporations is estimated by assuming 40 percent of non-taxable Canadian dividends received by non-financial corporations (60 percent for finance companies) to arise from widely-held corporations, by assuming accrued goodwill gains less goodwill losses to be equal to dividends received from such companies, and by assuming an average 3-year lag between accrued and realization of gains to result in deemed gains being 80 percent of currently-accrued net goodwill gains. Cf. J. Bossons, Rates of Return on Canadian Common Stocks : Dividends, Retentions, and Goodwill Gains, Studies of the Royal Commission on Taxation, Number 27 (Ottawa: Queen's Printer, 1966), chapter 3, for data underlying these estimates. All net capital gains realized on non-depreciable assets have been deducted from this estimate of taxable accrued gains to obtain the effect of constructive realization. Exempt Canadian dividends received have been prorated over finer industry groups in proportion to taxable income in all cases except finance companies, in which the proration has been adjusted to reflect an assumed lack of receipt of dividends by consumer credit agencies.
4. The allowance for dividends from widely-held companies received by closely-held companies and subject to additional tax under the white paper proposals is based on the white paper estimate presented in Department of Finance, Proposals for Tax Reform (Ottawa: Queen's Printer, 1969), Table 16, prorated over companies in proportion to exempt Canadian dividends received.
5. The effect of changes in tax subsidies extended to companies directly or indirectly engaged in the extractive industries is based upon data in Corporation Taxation Statistics, 1967, op. cit., assuming that 55 percent of depletion allowances currently deducted by operators will continue to be deducted under the rules proposed by the white paper.
6. Current taxes are defined as the sum of net federal taxes, credits for Quebec and Ontario provincial taxes, and other provincial taxes collected by the federal government. They, thus, exclude the 2 percent surtax levied in the provinces of Ontario and Quebec in 1967.



As the estimates presented in Table 3-1 indicate, the effects of the white paper tax reforms on the tax base of corporations are almost entirely accounted for by the taxation of capital gains and by the substantial elimination of tax preferences currently provided for companies engaged in mining and oil extraction activities. Because of the normally slow turnover of shares in other companies owned by corporations, more than half of the effect of the capital gains tax proposals of the white paper is accounted for by the proposal to deem accrued but unrealized goodwill gains on shares of widely-held companies to be realized for tax purposes once every five years.

The increased tax revenues resulting from these changes in the corporate tax base as well as from the elimination of the lower rate on the first \$35,000 of taxable income are shown in Table 3-2. The overall effect of the white paper tax reforms is to increase corporation income tax revenues by 35 per cent. As might be expected, the increase is particularly pronounced in the extractive industries, for which corporation income tax accruals would be increased by 123 per cent. In other industries, corporation income taxes would be raised by approximately 29 per cent; of this increase, the largest shares would be borne by financial institutions and by small companies in other industries.

The estimates presented up to this point have been based on very detailed data reconciling taxable income to book profits reported in the financial accounts of corporations. These data have been obtained for individual firms by the Dominion Bureau of Statistics using information on individual corporations' tax returns as well as the responses to a supplementary corporation survey; the results are published in the form of industry aggregates.<sup>3/</sup> The increase in corporate tax revenues in 1967 shown in Table 3-2 was estimated on the basis of this detailed data.

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<sup>3/</sup> The 1967 Corporate Survey on which the reconciliation of book profit to taxable income is based included 100 per cent of all corporations with \$5 million or more in assets, 50 per cent of corporations with assets from \$1 to \$5 million and 5 per cent of corporations with less than \$1 million in assets. Cf. Corporation Taxation Statistics, 1967 op. cit., pages 9-10.

Table 3-2

REVENUE FROM CURRENT AND PROPOSED CORPORATION  
INCOME TAX, 1967 AND 1969  
(millions of dollars)

	<u>Companies in Extractive Industries</u>	<u>Banks, insurance companies, and trust and mortgage companies</u>	<u>Other Companies</u>	<u>Total</u>
Taxes paid under 1967 tax law	156.5	130.0	1,859.8	2,146.3
Effect of 1968 tax changes	--	60.0	--	60.0
Revenue under current (1969 tax law	156.5	190.0	1,859.8	2,206.3
Tax change resulting from proposals	<u>193.1</u>	<u>57.6</u>	<u>532.4</u>	<u>783.1</u>
1967 REVENUE FROM PROPOSED CORPORATION TAX	<u>349.6</u>	<u>247.6</u>	<u>2,392.2</u>	<u>2,989.4</u>
<u>Breakdown of tax changes:</u>				
Effect of elimination of dual rate of corporation income tax	2.8	8.8	350.5	362.1
Effect of changes in the tax base	<u>190.3</u>	<u>48.8</u>	<u>181.9</u>	<u>421.0</u>
1967 REVENUE FROM TAX CHANGES	<u>193.1</u>	<u>57.6</u>	<u>532.4</u>	<u>783.1</u>
Effect of 1967-69 revenue growth	<u>34.4</u>	<u>10.3</u>	<u>94.7</u>	<u>139.4</u>
1969 REVENUE FROM TAX CHANGES	<u>227.5</u>	<u>67.9</u>	<u>627.1</u>	<u>922.5</u>

Notes:

1. Current corporation income tax liabilities accrued are obtained from Corporation Taxation Statistics, 1967, op. cit., Table 2, and are adjusted for 1965 tax changes as described in note 2 to Table 3-1.
2. Proposed taxes are based on applying a 50 percent corporate tax rate to the estimate of the proposed corporate tax base presented in Table 1 above, thus excluding the effect of the 2 percent surtax levied in 1967. Because it was not possible to break out the effect of the Manitoba-Saskatchewan surtax from current tax revenues the tax increase shown in this table is somewhat understated. Based on data presented for all industries in a special report by the Department of Finance, the effect of this omission is to understate the tax changes by approximately \$2.5 million. Cf. "Papers Concerning Corporations," submitted to the House of Commons Committee on Finance, Trade, and Economic Affairs, March 6, 1970, Table 2.
3. The effect of 1967-1969 revenue growth is estimated assuming the rate of growth of revenue from the proposed tax changes to be proportional to the rate of growth of corporate profits. Corporate profits are estimated to have increased by 17.8 percent over these two years; Cf. Dominion Bureau of Statistics, National Income and Expenditure Accounts, 1926 - 1968 (Ottawa: Queen's Printer, 1969), Table A; National Income and Expenditure Accounts, Preliminary Fourth Quarter and Annual 1969 (Ottawa: Queen's Printer, 1970, Table A.



To obtain an estimate of the white paper's impact measured in terms of 1969 incomes, the 1967 increase was extrapolated to 1969 using National Accounts' estimates of the growth in aggregate corporate profits over these two years. The resultant estimates of what the impact of the fully effective white paper tax reform changes would have been in 1969 for three major industry groups is shown in Table 3-2. Total corporation tax revenues would have been increased by \$923 million.

It is worth noting that this extrapolation procedure is conservative, in the sense that the amount of the revenue increase resulting from the tax reforms in 1969 terms is almost certainly understated thereby. This tendency of understatement results primarily from the higher growth rate in recent years of income subject to tax at lower rates. There is some evidence that this understatement may be substantial. Were one simply to extrapolate the elasticity of the 1964-67 rates of growth of the revenue yield of identifiable reforms to the 1967-69 period and to assume that the effect of other reforms would grow in importance at the same rate as aggregate corporate profits, one would end up with an estimate of \$1,064 million for the size of the increased 1969 revenue from the corporation income tax resulting from the white paper tax reforms.<sup>4/</sup> Because of uncertainty about the extent to which 1964-67 growth elasticities can be extrapolated, we have made no adjustment in order to be sure of erring on the side of understating the revenue increase resulting from the white paper tax reforms.

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<sup>4/</sup> Reliable estimates of the growth of the revenue yield of two tax reforms can be obtained for the period 1964 to 1967. The revenue yield of the elimination of the lower dual rate of corporation income tax grew by 33 percent over these years, while the total of exempt income from new mines and of depletion allowances deducted from income grew by 25 per cent. Cf. Tables 1, 2, and 4; 1964 data is obtained from Report of the Royal Commission on Taxation (Ottawa: Queen's Printer, 1966), Volume 6, Tables 37-2 and 37-3. By contrast, aggregate corporate profits grew only at the rate of 12.1% over this period. Cf. Dominion Bureau of Statistics, National Income and Expenditure Accounts, 1926-1968 (Ottawa: Queen's Printer, 1969), Table A. While less reliable data is available for change in capital gains over this period, it would appear from an examination of data on the growth of exempt dividends received, that accrued capital gains likely increased at a rate higher than the rate of increase in aggregate corporate profits. The estimate reported in the text is based on applying the 1964-67 elasticities in growth of depletion allowances and exempt mine incomes and of the effects of eliminating the dual rate to 1967-69 growth in aggregate profits, assuming the profits-elasticity of other reforms to be unity.

In spite of this likely understatement of the revenue effects of the corporation income tax changes, our estimates of these revenue changes are substantially higher than those presented earlier in the white paper. A comparison of our estimates with those presented in the white paper is provided in Table 3-3, in which the revenue effects of each reform are shown after having been extrapolated to 1969. As this table indicates, the revenue consequences of virtually all the important reforms are materially understated by the white paper estimates.

Approximately \$170 million of the difference of the two sets of estimates results from the fact that the white paper made no allowance for the effect of eliminating the exemption of income generated from a new mine in its first three years operation or for the effects of the revision of the depletion allowances to make such allowances more closely tied to actual exploration activity. The white paper excluded these effects from its estimates of the revenue effects of its proposals because the proposals would not become effective until after 1975. While it would be deceptive to maintain that such reforms would contribute tax revenue quickly--they would in fact not become fully effective before 1980--it would nevertheless seem equally misleading to ignore them entirely.

The remaining important differences between the two estimates consist of an approximately 10 per cent understatement of the effect of the elimination of the lower rate of tax on the first \$35,000 of taxable income, plus a material understatement of the effect of taxing capital gains at the corporate level.<sup>5/</sup>

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<sup>5/</sup> As was noted above, our estimate of the 1969 effect of eliminating the dual rate of corporation income tax is, if anything, understated because of likely understatement of the change in this item between 1967 and 1969. Moreover, our estimate of the 1967 effect of this reform proposal may also be slightly understated. An independent estimate of the effect of eliminating the lower corporate income tax rate can be obtained from some special tabulations recently produced by the Department of National Revenue for a sample of firms accounting for 93 per cent of taxable income in 1967 and for 98 per cent of fully tabulated tax returns of profitable companies of that year. The change in tax resulting from eliminating the dual rate for these companies would have amounted to \$245.4 million for profitable companies for income below \$35,000 and \$110.8 million for companies

Table 3-3

COMPARISON WITH WHITE PAPER ESTIMATES OF  
REVENUE FROM CORPORATION INCOME TAX CHANGES  
(1969 basis, millions of dollars)

	<u>Our Estimates</u>	<u>White Paper Estimates</u>	<u>Difference</u>
Elimination of the lower rate of tax on the first \$35,000 of taxable income	426.6	390.0	36.6
Realized capital gains less capital losses	95.7	100.0	-4.3
Constructive realization of net unrealized gains on shares of widely-held companies	143.7	--	143.7
Surtax on dividends from widely-held companies received by closely-held companies	60.0	60.0	--
Elimination of exemption of income from a new mine	125.8	--	125.8
Revision of depletion allowance for mine operators	46.8	--	46.8
Elimination of depletion allowance for non-operators	21.0	10.0	11.0
New rules for deducting exploration and development expenses by companies whose principal business is outside the extractive industries	-11.8	-10.0	-1.8
Other additions (net)	<u>14.7</u>	<u>10.0</u>	<u>4.7</u>
TOTAL CHANGE IN REVENUE	922.5	560.0	362.5

Source: Tables 3-1 and 3-2 above; Department of Finance, Proposals for  
Tax Reform, Table 16.



In all of the above estimates, the amounts shown for corporation income tax changes are based on the proposed federal tax rates plus the provincial revenue resulting from a provincial corporation income tax rate of 10 per cent. This has been done in order to keep these estimates consistent with the basis on which the revenue estimates presented in the white paper were made. Since provincial rates of corporation income tax are higher in all but four provinces, the total effects of the white paper proposals on revenues from the corporation income tax for all levels of government are understated by using the tax rates which are applicable only in those four provinces. Table 3-4 presents some estimates of the additional provincial revenue resulting from the white paper reforms in the six provinces with higher surtaxes.

Taking everything into consideration, the net effect of the fully-effective white paper proposals would have been to increase total corporation tax payments by between \$963 million and \$1,105 million. While, to be conservative, we have chosen to stick with the lower end of this range as our estimate of the impact of the white paper proposals, the effect of the proposals could easily be to increase corporation income tax payments (measured in terms of 1969 incomes) by more than a billion dollars. Such an amount represents a 38 per cent increase in revenue from the corporation income tax.

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5/ cont'd from previous page 3-9.  
with income over \$35,000. Cf. Department of Finance, "Papers Concerning Corporations," memorandum submitted to the House of Commons Committee on Finance, Trade, and Economic Affairs, March 6, 1970. Using the inverse of the sampling ratios to estimate the population totals in 1967, these results yield estimates ranging from \$363 million to \$383 million. The latter estimate would yield an estimate of \$451 million when extrapolated to 1969.

Table 3-4

ADDITIONAL REVENUE RESULTING FROM  
PROVINCIAL CORPORATE SURTAX, 1969  
(millions of dollars)

	<u>Companies in Extractive Industries</u>	<u>Banks, insurance companies, and trust and mortgage companies</u>	<u>Other Companies</u>	<u>Total</u>
Additional revenue from elimination of dual rate of corporate tax	0.2	0.6	24.6	25.4
Additional revenue from amounts added to corporate tax base	<u>5.9</u>	<u>2.0</u>	<u>7.4</u>	<u>15.3</u>
TOTAL CHANGE	6.1	2.6	32.0	40.7
Current revenue from provincial surtaxes over 50 per cent	<u>8.2</u>	<u>4.9</u>	<u>91.6</u>	<u>104.7</u>
TOTAL REVENUE UNDER WHITE PAPER PROPOSALS	<u>14.3</u>	<u>7.5</u>	<u>123.6</u>	<u>145.4</u>

Notes: These estimates are based on the data presented in Table 3-2 extrapolated to 1969 as described in note 3 to that table. The average additional tax rates arising from provincial surtax were estimated to be 1.32 per cent for companies in the extractive industries and 1.73 per cent for other companies, based on applying 1969 provincial tax rates to data in Corporation Taxation Statistics, 1967, op. cit., Table 3. Provincial tax rates less 50 per cent were weighted by taxable income in each province in calculating the average surtax rates.

### 3.2 Changes in Corporate Retained Earnings

While the change in revenue from the corporation income tax is of significance in itself, it is useful to examine its impact on private savings engendered through the retention of after-tax earnings by corporations. On a national accounts basis, retained earnings accounted for 16.8 per cent of total domestic investment for the 5-year period 1964 to 1968; during the same period, it represented 30.2 per cent of gross private saving.<sup>6/</sup>

To estimate retained earnings, it is necessary first to estimate total accrued income. It is worth noting in this connection that the normal national accounts definition of income is not particularly suitable for analyzing the input to corporate saving decisions, since this definition excludes additions to corporate spending power which arise in the form of increases in wealth. To obtain an estimate of total accrued income (including unrealized capital gains), it is necessary to make a number of adjustments to the proposed tax base estimated in Table 3-1.

The adjustments required to obtain total accrued income are shown in Table 3-5. The first set of adjustments is required in order to obtain current year taxable income for all companies from the estimates presented in Table 3-1 of the corporation income tax base under the white paper proposals. A second set of adjustments is required to allow for components of accrued income which are not included in the proposed tax base and to eliminate adjustments of income made in computing taxable income.<sup>7/</sup> After making

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<sup>6/</sup> Cf. Dominion Bureau of Statistics, National Income and Expenditure Accounts, 1926-1968 (Ottawa: Queen's Printer, 1969), Table 8.

<sup>7/</sup> Aside from adding back the excess amounts of certain expenses which are deductible in greater amounts for tax purposes than is the case in defining reported net income in the firm's financial statements, the most important of these adjustments is to eliminate the effect of the allowance for surtax on dividends from widely-held companies received from closely-held companies which is included in the proposed additions to the tax base. This adjustment is included in the residual other untaxed income, less adjustments category.

Table 3-5

TOTAL BEFORE-TAX INCOME ACCRUED BY  
CANADIAN CORPORATIONS, 1967  
(millions of dollars)

	Companies in Extractive Industries	Banks, insurance companies, and trust and mortgage companies	Other Companies	Total
PROPOSED TAX BASE	699.1	495.2	4,784.4	5,978.7
Adjustments to obtain current-year taxable income for all companies:				
Add: Prior year losses deducted	7.9	2.5	294.8	305.2
Less: Losses of unprofitable companies	<u>80.4</u>	<u>5.2</u>	<u>733.1</u>	<u>818.7</u>
NET TAXABLE INCOME, ALL COMPANIES	626.6	492.5	4,346.1	5,465.2
Other accrued income:				
Capital cost allowances less book depreciating	121.4	1.6	649.5	772.5
Mine development expense claimed, less amortization of cost of depletable assets	265.6	--	--	265.6
Remaining depletion allowance	94.8	--	2.4	97.2
Exempt "designated area" income	--	--	84.8	84.8
Exempt foreign dividends	9.5	48.8	130.6	188.9
Exempt Canadian dividends received by financial corporations from non-financial companies net goodwill	--	184.5	--	184.5
Unrealized accrued gains on shares of widely-held companies	17.8	22.4	44.7	84.9
Unrealized accrued net capital gains on other assets	8.4	9.0	116.0	133.4
Other untaxed income, less adjustments	<u>(107.2)</u>	<u>16.1</u>	<u>158.0</u>	<u>66.9</u>
TOTAL ACCRUED BEFORE-TAX INCOME	<u>1,036.9</u>	<u>774.9</u>	<u>5,532.1</u>	<u>7,343.9</u>

Notes: As in Table 3-1, unrealized net goodwill gains on shares of widely-held companies are equal to total accrued net goodwill gains less amounts included in taxable income; Cf. note 3 to Table 3-1. Unrealized capital gains on other assets (including shares of private companies) are assumed to be equivalent to twice net realized gains on depreciable assets. Exempt Canadian dividends received by financial institutions are estimated as described in Note 3 to Table 3-1; the amount shown in the above table reflects an adjustment to remove dividends received from other financial corporations. Exempt Canadian dividends received by non-financial corporations are excluded to avoid double-counting. "Other untaxed income less adjustments" include the effect of all exempt income and adjustments shown in Corporation Taxation Statistics, 1967, op. cit., Table 8, which are not shown separately in this table or in Table 3-1, with the exception of intercorporate dividends received by non-financial corporations.



these adjustments, total accrued income before corporation income taxes in 1967 was estimated to be \$7,344 million.

Corporate retained earnings under the current (1969) tax law in 1967 are estimated in Table 3-6. Retained earnings are equal to total accrued income after corporation income tax less cash dividends paid after allowing for intercorporate earnings. Both total accrued income and net cash dividends paid are thus defined in effect on a consolidated basis for all corporations in each of the financial and non-financial sectors.<sup>8/</sup> Total current retained earnings under the current (1969) tax system are estimated in Table 3-6 to amount to \$3,205 million. The effect of the change in corporation income tax resulting from the white paper proposals is thus to reduce retained earnings by 24.4 per cent, assuming that dividends are not changed in response to the tax changes. This reduction in corporate savings represents an approximately 7 per cent decrease in the total volume of private savings.

The reduction in corporate savings would be mitigated to the extent that dividends are reduced in response to the lower after-tax incomes resulting from the corporation income tax changes. Nevertheless, since the after-tax rate of return obtainable on additional corporate investment has also been reduced by the tax changes, it is possible that dividend payout ratios would be increased as a result of the lower volume of investment opportunities.<sup>9/</sup>

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<sup>8/</sup> Intrasector intercorporate dividends have thus been ignored in defining total accrued income of each sector. However, since financial corporations (banks, insurance companies, and trust and mortgage loan companies) have been treated as a separate sector from other corporations, the income of these financial corporations includes exempt Canadian dividends received by them from non-financial companies.

<sup>9/</sup> The overall change in the after-tax rate of return on savings invested in additional corporate investments is discussed in J. Bossons, "The Effect of Tax Rates on the Impact of Tax Reform", op. cit., section 2.3. Taking into account other adjustments engendered by the tax changes, it is likely that the volume of corporate investment would be reduced by on the order of 10 per cent.



Table 3-6

EFFECT OF CORPORATION INCOME TAX CHANGES  
ON CORPORATE RETAINED EARNINGS, 1967  
(millions of dollars)

	<u>Companies in Extractive Industries</u>	<u>Banks, insurance companies, and trust and mortgage companies</u>	<u>Other Companies</u>	<u>Total</u>
Total accrued income, before corporation income tax	1,036.9	774.9	5,532.1	7,343.9
Less: Current corporation income tax	-156.5	-190.0	-1,859.8	-2,206.3
Less: Cash dividends paid	-543.9	-103.5	-2,123.0	-2,770.4
Plus: Intercorporate dividends	<u>157.1</u>	<u>20.5</u>	<u>659.7</u>	<u>837.3</u>
CURRENT RETAINED EARNINGS	493.6	501.9	2,209.0	3,204.5
Less: Change in corporation income tax resulting from White Paper proposals	<u>193.1</u>	<u>57.6</u>	<u>532.4</u>	<u>783.1</u>
RETAINED EARNINGS AFTER CORPORATE TAX CHANGES	<u>300.5</u>	<u>444.3</u>	<u>1,676.6</u>	<u>2,421.4</u>

Notes: Data on cash dividends paid is obtained from Dominion Bureau of Statistics, Corporation Financial Statistics, 1967 (Ottawa: Queen's Printer, 1969), Table 3, for all companies other than insurance carriers, and is prorated over companies in different industries using data on cash and stock dividends combined presented in ibid, Table 2. Dividends paid by insurance carriers in 1967 (amounting to \$3.6 million for life insurance companies and \$10.1 for fire and casualty insurance companies) were obtained from data presented in Report of the Superintendent of Insurance for Canada, 1967, Tables 4E and 5. Intercorporate dividends are estimated as total exempt Canadian dividends received less amounts received by financial institutions from non-financial corporations, estimated as described in the notes to Tables 3-1 and 3-5. Other data is from Tables 3-2 and 3-5.

### 3.3 Changes in Taxes on Institutions and Non-Residents

The effect of tax changes affecting institutions and non-resident investors arising from changes in withholding taxes and changes in the personal income tax which are proposed by the federal government white paper are discussed in this section, so that subsequent discussion of the effects of personal income tax reforms can concentrate on their effects on resident individuals. Needless to say, trusts, mutual funds, charitable institutions, and non-resident investors will all be substantially affected by changes in the corporation income tax described in the preceding part of this chapter. The purpose of this section is merely to list the important reforms other than in the corporate income tax which affect financial and charitable institutions or non-resident investors and which have significant implications for the total revenue yield of the tax reform proposals. These reforms, together with estimates of their revenue yield, are listed in Table 3-7.

While the proposed integration procedure would result in a number of changes in the tax treatment of mutual funds, most of these would be passed through to shareholders and mutual funds and would have no revenue consequence in addition to the taxes paid by the shareholders of mutual funds. For the most part, mutual funds would simply be regarded as conduits under the proposed tax law, and so would have no effect on the total revenue yield of the proposed system. The one exception to this statement is that dividends received by mutual funds from closely-held corporations would be subject to an additional surtax relative to what would have been paid by shareholders and mutual funds had they received the dividends from the closely-held companies directly. In the subsequent analysis in chapter 6 of the treatment of corporate source income allocable to resident individuals, mutual funds are assumed to be treated as conduits. It is therefore necessary to include an adjustment for the additional tax collected on dividends from closely-held companies received by mutual funds.

Table 3-7

TAX CHANGES AFFECTING INSTITUTIONS AND  
NON-RESIDENT INVESTORS  
(millions of dollars)

Changes affecting  
institutions:

Surtax on dividends from closely-held companies received by mutual funds		5
Taxation of income accumulating in trusts at the top personal marginal tax rate		5

Changes affecting  
non-resident investors:

Taxation of capital gains on non-resident-owned real estate	30	
Taxation of capital gains on non-resident shareholdings in private companies	25	
Taxation of capital gains on shares of widely-held companies owned by non-resident investors with a greater than 25 per cent interest in such companies	40	
Taxation of capital gains on partnership interests and branch assets	<u>5</u>	100

Changes in withholding taxes:

Higher taxes on investment income going to non-treaty countries	2	
Other changes	<u>-5</u>	<u>- 3</u>
TOTAL CHANGES		<u>107</u>

Notes: The surtax on dividends from closely-held companies received by mutual funds is based on an assumption that funds receive approximately \$20 million in dividends from such sources. Estimates of the effect of taxing capital gains on non-resident-owned real estate is based on an estimate for 1964 presented in J. Bossons, A General Income Tax Analyses, Studies of the Royal Commission on Taxation, Number 25 (Ottawa: Queen's Printer, 1967), Table 9, adjusted to allow for changes between 1967 and 1969. Estimates of effects of taxing other capital gains on non-residents include the effect of full implementation of the white paper's proposals for modifications of tax treaties. With the exception of changes in withholding taxes on income going to non-treaty countries, the revenue-effects of changes in withholding taxes proposed by the white paper are as estimated therein; cf. Proposals for Tax Reform, op. cit., Table 17.

While the economic effect of this provision is to discourage the establishment and growth of venture capital companies which can act as intermediaries to pool risks involved in investing in new closely-held companies, additional tax revenue would be realized from the effect of this provision on existing mutual funds. The revenue impact of the proposals measured in 1969 terms is estimated to be \$5 million.

Certain other non-corporate financial intermediaries would be subject to addition tax. The most important change would be the taxation of income accumulating in trusts at the top personal marginal tax rate rather than an effective tax rate which was lower. Although the revenue increase resulting from this proposal could be more substantial, it has also been estimated at \$5 million.

Non-resident individuals would be subject to a number of changes, both in withholding taxes and in the treatment of certain categories of income received by certain classes of non-resident investors. With one exception, changes in withholding taxes have been estimated as in the white paper; the exception is that it has been assumed that additional tax treaties would be negotiated to avoid the higher taxes on investment income going to non-treaty countries under the white paper proposal.

The most important changes affecting non-resident individuals are the attempts proposed by the white paper to tax capital gains accrued or realized by non-residents. All capital gains realized by non-residents in the sale of real estate would be treated as taxable, as would be gains realized on the disposal of partnership interests and branch assets in Canada. While the white paper does not specify the tax rate which would be applied to such gains realized by non-residents; it is assumed that non-residents would be taxed at



the top personal marginal tax rate.<sup>10/</sup> The effect of these changes is to increase tax revenues by approximately \$35 million.

The white paper proposes in addition to tax capital gains on shares of private companies held by non-resident investors as well as on controlling non-resident owned interests in widely-held companies. Since the white paper proposes that credit for corporation tax paid by Canadian corporations not be extended to foreign shareholders, the capital gains subject to tax under these additional provisions could conceivably include capital gains arising from retentions as well as goodwill gains. In the estimate presented in Table 3-7, it has been assumed that only the goodwill portion of capital gains allocable to non-residents would be taxable. If capital gains arising from retained earnings were also to be taxed under these provisions, the estimates presented in Table 3-7 would have to be somewhat more than doubled. The taxation of even just goodwill gains on shares of widely-held companies owned by non-resident investors with greater than 25 per cent interests in such companies could be very substantial, particularly if the white paper's proposal to extend the application of its 5-year constructive realization proposal to such investors.

Since taxation of capital gains accrued but unrealized by non-resident investors would require a very significant modification of Canada's international tax treaties, this particular white paper proposal may not be feasible in the short term. While the long term effect of this provision could be to raise substantially more than \$40 million estimated in Table 3-7, it would be unsafe to make an estimate at this time that would be much higher. Nevertheless, the possibility for a substantially greater revenue increase than we have forecasted should be noted.

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<sup>10/</sup> As has been suggested by Arnold C. Harberger, "In Defense of Carter: A Personal Overview," National Tax Journal, March 1969, the use of the top personal marginal tax rate, while arbitrary, would roughly reflect the income position of most non-resident investors.



## CHAPTER 4

### EFFECT OF CHANGES IN TAX RATES AND IN CONCESSIONARY ALLOWANCES

The changes included in this chapter would raise tax revenues by \$194 million. They include the effects of changes in exemptions and tax rates (\$159 million), changes in the treatment of spouses and dependents income (\$15 million), income averaging (-\$30 million), changes in the definition of deductible medical expenses (\$41 million), and the taxing of scholarships and fellowships (\$9 million).

#### 4.1 Effect of Changed Tax Rates and Exemptions on the Current Tax Base

The federal government proposes to increase personal tax exemptions to \$1,400 from \$1,000 for single taxpayers and to \$2,800 from \$2,000 for married taxpayers. Since the \$100 standard deduction would be continued, these changes effectively entitle married persons to be exempt on income of \$2,900 and single persons to \$1,500.

Consideration in the analysis was given to tax filers who were not residents in Canada for the entire year and who therefore were not eligible for the full exemption. The rate schedule adopted was the schedule that will be in effect at the end of the five-year implementation period, assuming that by this time all transitional effects will have expired. The new rate schedule, replacing the present graduated rates, combined with the proposed change in exemptions will decrease the Canadian tax base by \$4,677 million and result in a tax revenue increase of \$159 million.<sup>1/</sup> The effects of this reform by income class are summarized in Table 4-1. Ignoring marital status, our estimates show that the exemption and rate schedule changes will on average result in lower taxes for those with incomes less than \$4,000 or greater than \$75,000. All other taxpayers will realize tax increases.

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<sup>1/</sup> It would appear that the federal white paper includes the increasing number of tax returns in the middle income groups (\$3,000-\$7,000), and hence overstates the revenue gain resulting from the tax rate schedule.

Table 4-1

EFFECT OF THE PROPOSED CHANGES IN EXEMPTIONS  
AND THE RATE SCHEDULE BY INCOME CLASS

<u>Income Class</u>	<u>Total Change in all Direct Taxes</u> (thousands of dollars)	<u>Change for the Average Taxpayer</u> (dollars)
less than \$1,000	- 964	- 1
\$ 1,000 - \$ 1,999	- 23,058	- 23
2,000 - 2,999	- 13,542	- 16
3,000 - 3,999	- 2,442	- 3
4,000 - 4,999	6,034	+ 7
5,000 - 5,999	2,964	+ 4
6,000 - 7,999	13,715	+ 10
8,000 - 9,999	29,758	+ 34
10,000 - 11,999	27,785	+ 77
12,000 - 14,999	49,907	+ 147
15,000 - 19,999	48,960	+ 203
20,000 - 24,999	19,627	+ 206
25,000 - 34,999	13,751	+ 194
35,000 - 49,999	8,902	+ 199
50,000 - 74,999	5,199	+ 191
75,000 - 99,999	- 465	- 46
100,000 - 149,999	- 3,900	- 494
150,000 - 199,999	- 3,668	- 1,091
200,000 - 299,999	- 4,264	- 1,652
300,000 over	<u>- 15,343</u>	- 7,813
TOTAL	<u>158,956</u>	

Source : Computer Tabulation of Tax Return Analysis.

#### 4.2 Changes in the Treatment of Spouse and Dependents' Income

Under the present legislation, if both spouses are working, the spouse with the higher income has the married exemption of \$1,000 reduced by \$1 for every \$1 the spouse with the lower income earns over \$250, until this income reaches \$1,250 whereupon both income earners file separately. The white paper proposes that the additional exemption of \$1,400 for a married person be reduced by \$1 for every \$1 that the spouse's income exceeds \$100. Under the white paper proposal it would be necessary to recognize the income of the taxpayer's spouse if it falls between \$100 and \$1,500. If it falls between \$1,250 and \$1,500 the taxpayer would be permitted to claim between \$1 and \$250 although he would not be allowed to claim any portion of the married exemption under the present legislation. Similarly, if the spouse's income is between \$100 and \$250 the taxpayer will have the married exemption decreased by \$1 to \$150.

Because of the data limitations of our input, we were able to quantify only the tax base and tax revenue effects of lowering the spouse's income to the level where the married exemption begins, i.e. from \$250 to \$100. This effectively amounts to a tax base increase of \$80.0 million. A tax increase of \$20.5 million should be included with the effect of the increase in the upper limit from \$1,250 to \$1,500 to measure the base and revenue change resulting from this reform.

In addition to reducing the extra exemption where the spouse of the taxpayer has an income, the tax reform reduces the deduction for children or other dependents with an income.

The white paper also proposes that in the case of children under the age of 16 for whom family allowances and the \$300 deduction are applicable, the parents' deduction would be reduced

by \$1 for every \$2 of income of the child in excess of \$900 so that when the child earns \$1,500 the parent would lose the child as a deduction. For older children and other dependants for whom the \$550 deduction is available, the taxpayer's deduction would be reduced by one dollar for every dollar that the dependant's income exceeds \$950. Under the present legislation the deduction is cut off completely once a dependant's income exceeds \$950. The parent can claim the dependant if he wishes; however, his taxes are increased by the amount the dependant earns over \$950. Both the white paper and the present legislation provide for the deduction of tuition fees when calculating taxable income of dependant students.

It did not prove feasible to analyze all types of dependants' income from the tax return data. Because of the interrelationship of the family, there was no reliable way to separate out the effects of dependants' income. A rough estimate of the change in the treatment of dependants' income would be to reduce tax revenues by \$5 million. A narrower definition of the qualifications for the exemption of a married person under special circumstances (e.g. unmarried clergymen) would raise some additional tax revenue. However, we have made no estimate for this small change.

#### 4.3 Income Averaging

Lacking additional evidence on income averaging, we have based our estimate partly upon the white paper estimate of -\$50 million and upon earlier estimates made by the Carter Commission for their more liberal averaging proposals. Forward extrapolation of the Carter Commission's estimate<sup>1/</sup> would suggest that a much less generous revenue estimate would be more reliable. We have estimated that the effect of the white paper income averaging proposals would be to reduce tax revenues by \$30 million.

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<sup>1/</sup> Report of the Royal Commission on Taxation (Ottawa: Queen's Printer, 1966), Volume 6, chapter 35 and Appendix A. The Carter Commission estimate was for a substantially more generous set of income averaging proposals, including forward as well as backward averaging and without the constraints proposed by the white paper to limit the use of its averaging proposals.



#### 4.4 Personal Financing of Medical Expenses

The federal white paper has proposed a more consistent treatment of medical expenses. Under the present arrangement, no expenses paid or received from public plans are included in medical expenses for purposes of the Income Tax Act.

The white paper proposes that benefits from insurance or pre-payment plans, as well as benefits received under public plans, should not be classed as medical expenses for tax purposes. Instead, the federal government proposes that premiums paid to other than government plans would be classed as medical expenses for tax deduction purposes. Non-recoverable medical expenses would continue to be deductible where they exceed 3 per cent of the taxpayer's income.

Our estimate for 1969 assumes that the current situation holds for the future and that private medical plans will continue to play an important role in the treatment of medical expenses. Our method includes the effect of eliminating a) private plans presently deductible and paid for, and b) proposed deductions of premiums to private plans. We estimate that the combined effect of excluding deduction of benefits from insurance plans and the estimated allowance for non-recoverable medical costs would increase the Canadian tax base by \$192 million and produce an increase in tax revenue of \$55 million.

Our estimates allow for the impact of public medicare plans in effect as of 1969 <sup>1/</sup>. We envisage a further reduction of \$15 million to reflect increased adoption of medicare plans.<sup>2/</sup>

Due to the uncertainties associated with the implementation of and participation in, private plans, there is no precise way to measure the future relationship between private and public medical plans. Many people will continue to contribute to private plans to realize the greater benefits that are not available under medicare. A substantial

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<sup>1/</sup> The procedure presumed the Ontario medicare scheme had been in for only three months in 1969. However, if we assume a full year's operation of the Ontario scheme, the impact would produce a further reduction in tax revenue. Internal Ontario estimates taking this consideration into account yield a total tax revenue increase of \$40 million.

<sup>2/</sup> Principally, the adoption by Quebec of medicare.

number in upper income groups can be expected to continue their participation in private plans even under full medicare, while lower income groups may be expected to take advantage of the deductions available on such excluded items as drugs.

We estimate that the combined effect of excluding deduction of benefits from insurance plans and the estimated allowance for non-recoverable medical costs would have increased the Canadian tax base by \$192 million and produced an increase in tax revenue of \$55 million in 1969. The estimates are presented in Table 4-2.

The bulk of the extra revenue from the changes is estimated to come from those earning between \$4,000 and \$20,000 of assessable income. Taxpayers within this range will provide 77 per cent of the extra revenue. Those with incomes between \$4,000 and \$10,000 will provide 50 per cent of the increase.

The average taxpayer earning between \$4,000 and \$5,000 will pay \$4 in extra tax under the proposal. The average taxpayer with an assessable income between \$15,000 and \$20,000 will pay about \$19 extra taxes under the proposal. The extra revenue from the average taxpayer increases throughout the income scale. It will effectively reduce the number of deductions currently claimed in each income class.

The overall effect of this proposal is estimated to increase tax revenue from taxpayers in all income classes.

Table 4-2

TOTAL MEDICAL DEDUCTIONS AND AVERAGE EXTRA REVENUE  
UNDER THE PROPOSAL

<u>Income Class</u>	Total Deductions Under Current System (thousands of dollars)	Total Deductions Under Proposal (dollars)	Average Additional Tax Payable Under the Proposal (dollars)	Revenue as a Result of Tax Reform (thousands of dollars)
less than \$1,000	404	246	0	3
1,000- 1,999	3,517	2,112	0	152
2,000- 2,999	12,183	6,100	1	1,053
3,000- 3,999	22,139	9,708	2	2,636
4,000- 4,999	27,021	10,501	4	3,492
5,000- 5,999	28,214	9,775	6	4,331
6,000- 7,999	52,724	13,992	8	10,539
8,000- 9,999	40,204	8,135	11	9,664
10,000- 11,999	19,131	3,208	14	5,066
12,000- 14,999	18,803	2,848	16	5,348
15,000- 19,999	13,904	1,798	19	4,281
20,000- 24,999	8,001	1,305	26	2,488
25,000- 34,999	5,792	1,103	25	1,791
35,000- 49,999	5,287	1,260	35	1,548
50,000- 74,999	3,461	862	40	1,095
75,000- 99,999	1,342	323	43	441
100,000-149,999	1,771	472	77	607
150,000-199,999	801	204	88	295
200,000-299,999	880	231	127	329
300,000 and over	<u>1,011</u>	<u>225</u>	<u>205</u>	<u>402</u>
TOTAL	<u>266,592</u>	<u>74,400</u>		<u>55,561</u>

Source: Computer Tabulation of Tax Return Analysis



#### 4.5 Taxing Scholarships and Fellowships

The federal white paper proposes removing the tax exemptions from external support income for students. Thus, when a student's income exceeds ordinary exemptions and the tax exemptions for tuition expenses, he will be assessed at normal rates.

The white paper proposes to regard post-graduate students and research workers as professional workers and hence subject to tax after appropriate exemptions. It presumes payments to undergraduates fall normally within the exemption limits but that where a student's full income does not, it should be subject to tax in the ordinary fashion.

Our estimates indicate that this change will enlarge the tax base by approximately \$52 million and increase total tax revenue by slightly more than \$8 million for Canada.

In arriving at this result, it was assumed that a full-time student earned no more than \$5,000 from wages or salaries. This did not preclude the possibility of students receiving income from other sources and thereby having an assessable income substantially in excess of this (for example, income from dividends, interest, etc.). Our results would indicate that a number of students do receive substantial income from sources other than wages and salaries.

In estimating the additional tax revenue from this source it was assumed the average fellowship income for undergraduate students qualifying for this support was \$400.

In the 1967-1968 fiscal year, the federal government provided \$26.7 million to Canadian post-secondary students and the provincial governments provided a further \$52 million. In assessing the impact on the tax base of these payments to students, it was assumed 80 per cent of this goes to undergraduates and 20 per cent to graduate students.



Our estimates do not include presently untaxed fellowships and scholarships awarded by the universities themselves and donated by private individuals. Thus, the procedure employed in the estimate underestimates the potential revenue gains from the proposed taxation of fellowship and scholarship income.

Students with total assessable incomes between \$2,000 and \$5,000 will provide 81 per cent of the extra revenue. Those with an income in excess of \$5,000 will provide an estimated 7 per cent and those with less than \$2,000 will provide 12 per cent. Estimates for students in different income classes are presented in Table 4-3.

Table 4-3

## TAXATION OF SCHOLARSHIPS AND FELLOWSHIPS

(thousands of dollars)

<u>Income Class</u>	<u>Total Increase in Revenue from Each Assessable Income Class</u>
less than \$1,000	14
1,000- 1,999	1,052
2,000- 2,999	3,223
3,000- 3,999	2,215
4,000- 4,999	1,537
5,000- 5,999	226
6,000- 7,999	88
8,000- 9,999	69
10,000- 11,999	7
12,000- 14,999	92
15,000- 19,999	3
20,000- 24,999	9
25,000- 34,999	11
35,000- 49,999	10
50,000- 74,999	28
75,000- 99,999	1
100,000-149,999	3
150,000-199,999	0
200,000-299,999	1
300,000 and over	0
TOTAL	<u><u>8,589</u></u>

Source: Computer Tabulation of Tax Return Analysis.

## CHAPTER 5

### CHANGES IN TAXES ON EMPLOYMENT INCOME

The changes in the treatment of employment income have the objective of increasing the degree to which individuals with similar total incomes are treated alike with respect to the various benefits from employment.

The proposals include a standard employee expense allowance, inclusion in the tax base of certain employee benefits received, and of employers' contributions to public medicare plans made on behalf of employees; an allowance for child care costs of working mothers; deductibility of unemployment contributions and taxing of unemployment benefits.

Our estimates indicate that the net impact of the proposals is to reduce federal tax revenue by \$58.3 million.

The major reductions in total revenue arise from the proposed standard employee expense allowance (\$247 million); the child care allowance for working mothers (\$13.6 million); the eligibility of unemployment insurance contributions for tax deduction (\$50.6 million). These are offset by an increase of \$76.9 million from the addition of certain employee benefits to the tax base; an addition of \$91.5 million from the attribution of employer medical contributions<sup>1/</sup> and an increase of \$84.6 million from the addition of unemployment insurance benefits to taxable income.

Other changes would increase tax revenues by \$25 million; these are the effects of including training allowances in taxable income and of changes in the taxation of armed services personnel, and are based on federal government estimates.

#### 5.1 Tax Effects of the Proposed Standard Employee Expense Allowance

The federal white paper proposes that (subject to certain exceptions) the deduction of employment expenses not be permitted

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<sup>1/</sup> This tax analyzer result probably overstates the revenue gain somewhat. See Section 5-3.

but an allowance be made in lieu of permitting itemization of actual costs of earning a wage or salary income. This deduction is to be 3 per cent of gross employment income up to a maximum of \$150 per year.

Our estimates indicate that the employment expense allowance would reduce total tax revenue by \$235 million. (See Table 5-1 for a distribution of this amount by income class). Although this estimate does not include moving expenses and other deductions, it is identical to the federal white paper estimate which does.<sup>2/</sup> The addition of our estimated reduction in revenue of \$12 million for moving expenses increases this amount to a total of \$247 million.

The tax revenue reductions would be realized chiefly by those with incomes between \$4,000 and \$10,000, where 62 per cent of the reduction in revenue occurs. As income rises above \$5,000, the limit of \$150 makes the allowance less and less important to the employee. This effect is shown more explicitly in Table 5-2.

In addition to the standard expense allowance, the white paper proposals would allow the deduction of moving expenses. This has been estimated to yield a tax reduction of \$12 million.

## 5.2 Taxation of Personal Benefits

The federal white paper proposes "to set more rigorous limits to check 'expense account living'".<sup>3/</sup>

Since it is impossible to find adequate data on the extent, composition, and size of expense account deduction, it has been necessary to make simplifying assumptions in our attempt to quantify the tax base and revenue consequences for Canada if these deductions are to be no longer permitted. These assumptions are described in detail in Appendix B.

Our estimates reflect three categories of employee benefits: high-income employee benefits, benefits attributable to self-employed, commission and/or professional income earners, and benefits attributable to self-employed unincorporated business income earners.

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2/ Proposals for Tax Reform, op. cit., p.95.

3/ Proposals for Tax Reform, op. cit., p.16.



Table 5-1

REDUCTION IN TAX REVENUE ARISING FROM THE  
PROPOSED STANDARD EMPLOYEE EXPENSE ALLOWANCE, BY INCOME CLASS

<u>Income Class</u>	<u>Tax Reduction</u> (thousands of dollars)	<u>Tax Base Reduction</u> (thousands of dollars)
less than \$1,000	52	9,622
1,000- 1,999	4,419	36,509
2,000- 2,999	10,199	50,319
3,000- 3,999	23,291	96,888
4,000- 4,999	26,259	101,913
5,000- 5,999	26,557	99,082
6,000- 7,999	54,497	187,291
8,000- 9,999	37,396	117,999
10,000- 11,999	15,685	46,890
12,000- 14,999	15,445	44,134
15,000- 19,999	10,302	27,721
20,000- 24,999	4,193	10,267
25,000- 34,999	2,879	6,647
35,000- 49,999	1,750	3,769
50,000- 74,999	1,007	2,072
75,000- 99,999	409	823
100,000-149,999	345	683
150,000-199,999	148	292
200,000-299,999	110	216
300,000 and over	86	169
TOTAL	<u>235,028</u>	<u>843,306</u>

Table 5-2

EMPLOYMENT EXPENSE ALLOWANCE

Income Class	For Head of Household		For Working Spouses		For Unattached Individuals	
	Average Allowance (dollars)	Deduction as a fraction of Average Wages & Salary Income	Average Allowance (dollars)	Deduction as a fraction of Average Wages & Salary Income	Average Allowance (dollars)	Deduction as a fraction of Average Wages & Salary Income
Less than \$1,000	18	0.028	40	0.030	16	0.030
\$ 1,000 - \$ 1,999	36	0.030	55	0.030	41	0.030
2,000 - 2,999	52	0.030	80	0.030	68	0.030
3,000 - 3,999	76	0.030	106	0.030	99	0.030
4,000 - 4,999	108	0.030	128	0.030	128	0.030
5,000 - 5,999	134	0.028	144	0.028	140	0.028
6,000 - 7,999	143	0.023	145	0.024	144	0.023
8,000 - 9,999	145	0.018	142	0.021	143	0.019
10,000 - 11,999	144	0.016	149	0.018	138	0.017
12,000 - 14,999	145	0.014	147	0.016	138	0.014
15,000 - 19,999	143	0.011	147	0.013	134	0.012
20,000 - 24,999	137	0.009	146	0.013	127	0.011
25,000 - 34,999	134	0.008	147	0.009	125	0.010
35,000 - 49,999	132	0.007	150	0.010	117	0.009
50,000 - 74,999	129	0.005	131	0.009	114	0.007
75,000 - 99,999	132	0.005	150	0.005	122	0.005
100,000 - 149,999	136	0.004	150	0.004	119	0.005
150,000 - 199,999	136	0.004	150	0.005	111	0.004
200,000 - 299,999	137	0.003	0	0	110	0.004
300,000 and Over	134	0.003	0	0	115	0.003
TOTAL	128	0.018	116	0.026	95	0.024

Source: Computer analysis of tax return sample.

Notes: Individuals are classified by total accrued net income, including income which would remain untaxed under the federal white paper proposals. Figures may not add to total due to rounding.

Using our method and assumptions it is estimated that the taxation of employee benefits will increase the Canadian tax base by \$185.3 million and generate an additional \$76.9 million in tax revenue. Tax changes by income class in the three categories are outlined in Table 5-3. As is to be expected most of the benefits and hence tax increases occur in the high income classes.

### 5.3 Changed Treatment of Employer Contributions for Public Medical Plans

Under present legislation, employees are not required to include in their taxable income medical premiums paid on their behalf by employers. The federal white paper would change this by requiring that employees pay taxes on these premiums. This would place contributions to public medical care plans on the same basis as contributions to public hospital care plans.

Because of inadequate national data, Ontario estimates were employed for the assumption values used as a basis for deriving the Canadian estimates of the tax revenue generated by this reform. Since the Ontario estimates was extrapolated for Canada, a deflation factor of 33 per cent was used in the analyzer program. This was because Ontario medicare contributions by employers on behalf of employees are higher than the national average. The reasons for this are the following: i) some provinces do not as yet have medicare plans; ii) where they do exist, premiums may be lower; and iii) collective agreements on the employers' share are more general in Ontario. (See Appendix B for details of the assumption analysis and method of calculation.)

Using this procedure, it is our estimate that the taxation of employer medicare contribution on behalf of employees will produce an additional \$57.0 million in tax revenue in Ontario alone. For Canada the increase in tax base is estimated at \$308 million, generating an additional \$91.5 million in tax revenue. This amount for Canada could be overstated somewhat, perhaps by \$15 million, because of the three factors mentioned above. A distribution of the effects of this reform by income class is presented in Table 5-4.

Table 5-3

ADDITIONS TO THE TAX BASE AND INCREASE IN TAXES FROM TAXING PREVIOUSLY UNTAXED EMPLOYEE BENEFITS

Income Class	Number of Individuals with Benefits	Attributable Top-Employee Benefits	Attributable Expenses of Self-Employed	Attributable		Total Benefits Attributable	Change in Total Taxes	Average Benefits Benefits
				Personal Expenses of Unincorporated Business Men	(Thousands of Dollars)			(Dollars)
Less than \$1,000	741	54	15	238		331	46	448
\$ 1,000 - \$ 1,999	75	-	8	6		17	4	227
2,000 -	16,392	-	28	98		126	18	8
3,000 -	64,129	-	235	1,852		2,087	207	33
4,000 -	68,722	2	300	3,374		3,677	481	54
5,000 -	64,513	1	386	3,420		3,810	750	59
6,000 -	92,822	-	814	6,230		7,056	1,722	76
8,000 -	75,509	14	710	5,189		5,929	1,672	79
10,000 -	33,287	31	763	4,192		4,994	1,543	150
12,000 -	100,428	1,487	1,096	4,398		6,996	2,366	70
15,000 -	168,575	19,105	2,800	5,677		27,628	10,348	164
20,000 -	69,791	19,440	3,544	3,734		26,769	11,188	384
25,000 -	48,873	19,996	5,527	3,470		29,063	13,038	595
35,000 -	28,258	18,599	6,475	1,405		26,543	13,088	939
50,000 -	16,761	13,695	4,955	813		19,549	9,895	1,166
75,000 -	6,538	5,884	2,074	201		8,199	4,173	1,254
100,000 -	5,023	5,065	1,374	141		6,628	3,374	1,319
150,000 -	1,864	2,072	460	36		2,581	1,314	1,385
200,000 -	1,318	1,633	163	22		1,832	937	1,390
300,000 and over	960	1,303	99	20		1,433	732	1,494
TOTAL	864,578	108,390	31,835	44,526		185,258	76,897	214

Source: Computer analysis of tax return sample.

Notes: Individuals are classified by total accrued net income, including income which would remain untaxed under the federal white paper proposals. Figures may not add to totals due to rounding.



Table 5-4

TREATMENT OF EMPLOYER MEDICARE CONTRIBUTIONS  
ON BEHALF OF EMPLOYEES, 1969

(thousands of dollars)

<u>Income Class</u>	<u>Change in Tax Revenue</u>	<u>Change in Tax Base</u>
Less than \$1,000	15	2,579
1,000 - 1,999	1,179	9,748
2,000 - 2,999	2,723	13,445
3,000 - 3,999	6,220	25,898
4,000 - 4,999	7,027	27,298
5,000 - 5,999	7,580	28,249
6,000 - 7,999	18,948	64,895
8,000 - 9,999	16,160	50,811
10,000 - 11,999	7,813	23,274
12,000 - 14,999	8,940	25,436
15,000 - 19,999	7,124	19,063
20,000 - 24,999	3,022	7,323
25,000 - 34,999	2,036	4,639
35,000 - 49,999	1,210	2,564
50,000 - 74,999	697	1,416
75,000 - 99,999	284	568
100,000 - 149,999	242	478
150,000 - 199,999	100	197
200,000 - 299,999	75	148
300,000 and over	<u>58</u>	<u>114</u>
ALL CLASSES	<u>91,453</u>	<u>308,142</u>

Source: Computer analysis of tax return sample.

Notes: Individuals are classified by total accrued net income, including income which would remain untaxed under the federal white paper proposals. Figures may not add to totals due to rounding.

#### 5.4 Incorporation of Net Income from Unemployment Insurance

In order to increase horizontal equity the white paper proposes that unemployment insurance benefits be taxed. It is also proposed that unemployment insurance contributions be deductible for tax purposes.

The method of allocating unemployment insurance contributions by income class is outlined in Appendix B. See Table 5-5 for unemployment insurance calculations by income class. The allocation of unemployment insurance benefits was based on unpublished data obtained from the Unemployment Insurance Commission. Unemployment insurance deductions were allocated to employees on the basis of wage and salary income and the unemployment insurance rate schedule.

It is our estimate that these proposals will raise an additional \$34 million from Canadian taxpayers on the basis of 1969 incomes. The effects of taxing net benefits of unemployment insurance by income class are illustrated in Table 5-6.

By themselves, the proposals to tax unemployment insurance benefits received and to allow a deduction for unemployment insurance contributions will bring about net tax increases for those taxpayers with assessable incomes less than \$5,000 but, on the average, they will decrease the tax burden for those with assessable income greater than \$5,000. These average figures of course obscure the important intra-class transfers from individuals who receive unemployment insurance benefits to individuals with their income obtained only from wages and salaries.

#### 5.5 The Effect of the Proposed Working Mother Deduction

The federal white paper proposes a new tax deduction for working mothers in recognition of the costs they incur for child care. The proposed deduction is \$500 per child under 14, up to a maximum of \$2,000 per family. In order to be eligible for this new

Table 5-5

UNEMPLOYMENT INSURANCE CONTRIBUTIONS

Income Class	For Head of Household		For Working Spouses		For Unattached Individuals	
	Average Unemployment Insurance Contribution	Deduction as a Fraction of Average Wages & Salary Income	Average Unemployment Insurance Contribution	Deduction as a Fraction of Average Wages & Salary Income	Average Unemployment Insurance Contribution	Deduction as a Fraction of Average Wages & Salary Income
	(dollars)		(dollars)		(dollars)	
Less than \$1,000	5	0.008	7	0.005	4	0.008
\$ 1,000 - \$ 1,999	8	0.007	13	0.007	9	0.007
2,000 - 2,999	14	0.008	21	0.008	18	0.008
3,000 - 3,999	22	0.009	31	0.009	30	0.009
4,000 - 4,999	32	0.009	39	0.009	39	0.009
5,000 - 5,999	43	0.009	47	0.009	46	0.009
6,000 - 7,999	48	0.008	48	0.008	48	0.008
8,000 - 9,999	12	0.002	30	0.004	15	0.002
10,000 - 11,999	4	--	21	0.003	8	0.001
12,000 - 14,999	2	--	15	0.002	5	0.001
15,000 - 19,999	2	--	10	0.001	5	0.001
20,000 - 24,999	2	--	11	0.001	6	0.001
25,000 - 34,999	3	--	3	--	7	0.001
35,000 - 49,999	4	--	0	--	9	0.001
50,000 - 74,999	5	--	2	--	7	--
75,000 - 99,999	5	--	0	--	6	--
100,000 - 149,999	4	--	0	--	5	--
150,000 - 199,999	5	--	0	--	7	--
200,000 - 299,999	5	--	0	--	6	--
300,000 and Over	4	--	0	--	8	--
TOTAL	23	0.003	33	0.007	25	0.006

Source: Computer analysis of tax return sample.

Notes : Individuals are classified by total accrued net income, including income which would remain untaxed under the federal white paper proposals. Figures may not add to totals due to rounding.

Table 5-6

EFFECT OF TAXING NET BENEFITS  
FROM UNEMPLOYMENT INSURANCE  
(thousands of dollars)

<u>Income Class</u>	<u>Tax Revenue from Unemployment Benefits</u>	<u>Tax Decrease from Deductible Contributions</u>	<u>Effect of Taxing Net Benefits of Unemployment Insurance</u>
Less than \$1,000	285	- 8	277
\$ 1,000 - \$ 1,999	22,780	-1,015	21,765
2,000 - 2,999	20,839	-2,744	18,095
3,000 - 3,999	11,987	-6,971	5,016
4,000 - 4,999	11,621	- 8,024	3,597
5,000 - 5,999	4,283	-8,664	-4,381
6,000 - 7,999	8,257	-18,320	-10,063
8,000 - 9,999	2,870	-3,451	-581
10,000 - 11,999	725	-550	175
12,000 - 14,999	582	-361	221
15,000 - 19,999	338	-192	146
20,000 - 24,999	46	-92	-46
25,000 - 34,999	16	-94	-78
35,000 - 49,999	5	-73	-68
50,000 - 74,999	1	-41	-40
75,000 - 99,999	0	-17	-17
100,000 - 149,999	0	-13	-13
150,000 - 199,999	0	-8	-8
200,000 299,999	0	-5	-5
300,000 and Over	0	-5	-5
ALL CLASSES	<u>84,635</u>	<u>-50,648</u>	<u>33,987</u>

Source: Computer analysis of tax return sample.

Notes: Individuals are classified by total accrued net income, including income which would remain untaxed under the federal white paper proposals. Figures may not add to totals due to rounding.



deduction, however, working mothers must be able to itemize and verify actual expenses on child care. That is, in order to claim a \$500 deduction on the tax form, a working mother must have paid out \$500 for childcare. There is a further constraint, moreover, that the total deduction claimed by a working mother cannot exceed  $\frac{2}{3}$  of the earned income of the parent with the lower income in the family. Thus, a working mother with four dependent children would have to earn \$3,000 in order to claim the maximum deduction of \$2,000, assuming she could substantiate that amount of child care expenses. Another constraint is that child care by dependent relatives (e.g., grandparents) would not qualify as an allowable expense.

The federal white paper estimates that this new tax provision would have resulted in a revenue loss of \$95 million in Canada if it had been in effect in Canada in 1969. Ontario estimates the cost of this reform at only \$13.6 million.

Ontario has costed out this reform by identifying the number of tax returns representing working mothers, then calculating the tax loss on these returns. We have isolated as working mothers, female taxpayers who have \$300 dependent children and file either as single but actually are married, or file as married and are actually married, widowed, divorced, separated or single. On this basis, a total of 157,600 taxpayers in Canada would be eligible for the proposed child care deductions. This procedure understates the potential clientele, since it excludes those married women who file as single and whose husband claims the dependent children on his return. On the other hand, the Ontario analysis greatly exaggerates the potential tax loss attributable to each working mother. We have totally ignored the itemization constraint, the age constraint, the increase in tax base which would result from payments to babysitters or child care agencies, plus the obvious fact that the majority of children would be in school hence require little or no child care.

Independently of the tax analyzer results, we undertook

two outside tests of the magnitude of revenue loss involved in this reform. The first method used labour force and population data to estimate the number of children of working mothers, plus assumptions on the proportion of mothers who would benefit from the new provisions, to arrive at the potential tax loss. Thus, we estimate the total number of working mothers<sup>4/</sup> with children under 16 at 800,000 in Canada in 1970, and the total number of their children at 1,730,000.<sup>5/</sup> Of this number only 330,000 children are pre-school age, hence likely to result in expenses on child care. The itemization constraint would further reduce this number -- we assume by at least 60 per cent -- to leave 130,000 children for which mothers actually pay expenses on child care. Using the maximum \$500 deduction for each of these eligible children results in a reduction in the tax base of \$65 million and a potential revenue loss of less than \$20 million.

As a further test, we applied tax analyzer output on the average tax loss per working mother earning less than \$10,000, against our independent estimate of the number of working mothers with pre-school children. That is, an average tax loss of \$75 per working mother times 220,000 working mothers with pre-school children, resulted in an overall tax loss of \$16.5 million.

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<sup>4/</sup> Includes working women who are married, widowed, divorced or separated.

<sup>5/</sup> See Appendix B, Table B-2.

## CHAPTER 6

### TAX CHANGES ON INCOME FROM CORPORATE EQUITIES

The changes in personal income taxes on income from common stocks which would result from the tax reforms proposed by the federal white paper are somewhat complex. This complexity arises partly from the nature of the white paper tax reforms, partly from the nature of income derived by shareholders from corporate equities, and partly from the very different ways in which different types of income derived from common stocks are treated under the present tax system. Because of the ease with which this complexity can cause confusion, a substantial part of this chapter will be devoted to clarification of the interrelationships among different types of income from corporate equities. Another substantial part provides a detailed description of the effects of all of the tax changes that would affect after-tax income derived from corporate equities.

The importance of clarifying the tax changes affecting personal income derived from common stocks is heightened by the large error in the estimates presented in the federal white paper of the effect of these changes on total tax revenues. It is noteworthy that roughly half of the total error in the federal white paper's estimates of the change in total revenue yielded by the personal income tax arises from errors in its predictions of the effect of changes in the treatment of income derived from corporate equities.

This chapter is organized as follows: In the first section, we discuss the relationships among different types of corporate income and present some estimates of the aggregate importance of the different types of income for Canadian resident individuals. Following this general introduction, the next two sections present estimates of the distribution of different types of income among individuals and families in different income classes.



Different types of cash distributions are first discussed in Section 6.2. The distribution of other types of accrued income allocable to shareholders is then discussed in Section 6.3.

The remainder of the chapter presents our estimates of the effects of the changes in the personal income tax structure that would result from the tax reforms proposed by the white paper. The effect of changes in the tax treatment of cash distributions and of other income accrued at the corporate level which would be taxed at the personal level under the white paper's integration proposals is discussed in Section 6.4. In Section 6.5, the effect of taxes on capital gains on common stocks is discussed. Finally, the total tax changes on corporate source income resulting from the white paper proposals for resident individuals are brought together and summarized in Section 6.6.

#### 6.1 Types of Corporate Income

In a world without taxes, it would be a relatively straightforward matter to define the nature of income accrued from an investment in common stock. Total income accrued by a shareholder is equal to the sum of cash distributions received plus accrued capital gains. The accrued capital gains may in turn be divided in two parts: those arising from the retention of earnings by the corporation and those arising in the form of "goodwill" gains.

Because of the importance of being able to distinguish between the two types of capital gains, it is worth commenting on sources of each. On the average, approximately 50 per cent of after-tax incomes currently accrued by corporations are normally paid out in the form of dividends.<sup>1/</sup> The balance is retained by

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<sup>1/</sup> For corporations making a profit in 1967, the ratio of cash dividends to reported net income was less than 47.8 per cent; cf. Dominion Bureau of Statistics, Corporation Financial Statistics, 1967 (Ottawa: Queen's Printer, 1969), Table 3, and Corporation Taxation Statistics, 1967 (Ottawa: Queen's Printer, 1969), Tables 2 and 8. Taking unrealized accrued gains not included in reported net income into account and including dividends received, the ratio of total cash dividends paid to total net after-tax accrued income for all companies (including loss companies) was 46.4 per cent in 1967. Cf. chapter 3 above, Table 3-6.



the company, typically to finance additional investments in real assets. Since such investments are profitable only if they give rise to increases in earnings in the future, the reinvestment of earnings allocable to shareholders is typically associated with a rising level of expected earnings allocable to the shareholder, so that his share of before-tax corporate income is expected to be higher in the future than in the present.

Because the discounted present value of a rising stream of earnings will obviously be higher than the discounted present value of a stream of earnings which is perpetually equal only to the present level of earnings, a stock with which rising expected earnings are associated will have to generate higher capital gains in any period than simply the amount of earnings retained. These "extra" capital gains are required to generate an expected rate of return equal to that generally prevailing in the market. For this reason, earnings growth (or more specifically, growth in earnings allocable to current shareholders without any further investment on their part) results in the existence of real goodwill gains, measured in constant prices, which over a reasonably long period of time will add up to a positive total.<sup>2/</sup> Additional goodwill gains will arise as the result of general price inflation, even if goodwill gains are deflated by a current price index.<sup>3/</sup>

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<sup>2/</sup> These statements are demonstrated in Section 2 of Appendix C. The classic paper on the valuation of growth is Merton H. Miller and Franco Modigliani, "Dividend Policy, Growth, and the Valuation of Shares," Journal of Business, 34 (October 1961), pages 411-433, which provides further analysis of the joint impact of earnings growth and corporate financial policy on the market value of shares.

<sup>3/</sup> There are essentially two components to inflation-induced goodwill gains: one arising from the effect of the resultant revaluation of the market value of shareholdings as of the beginning of a period, and the second arising from the inflation of current income. To put this in more specific terms, real goodwill gains need to be calculated in two steps: first by subtracting the necessary revaluation of beginning market value from goodwill gains measured in terms of current prices, and then by deflating the residual by the increase in prices. On this point, cf. John Helliwell, "The Taxation of Capital Gains," Canadian Journal of Economics, 9 (May 1969), pages 314-318.

For both of these reasons, goodwill gains can be expected to form a significant component of total income accrued by shareholders.

This expectation is borne out by empirical tests. Based on data reported elsewhere,<sup>4/</sup> it would seem appropriate to forecast that, at least by large companies, goodwill gains are in fact likely to exceed cash dividends as a source of shareholders' income. As a result, it is necessary to do two things in measuring total accrued corporate source income of resident individuals: estimate the share of total income accrued by corporations which is allocable to resident individual shareholders, and estimate the additional shareholder income accrued in the form of goodwill gains.

In estimating the share of total corporate income which is allocable to resident individual shareholders, we have relied heavily on estimates of the distribution of ownership of shares of different types of companies which were obtained for 1964. These estimates, obtained by reconciling data obtained from a number of different sources, are presented in Appendix D. The distribution of net dividends declared by Canadian corporations among different types of investors (other than other corporations) implied by the data put together in Appendix D is presented in Table 6-1.

In the absence of more recent data on the distribution of ownership in detail comparable to that presented in Appendix D, we have simply assumed that the fractional importance of share ownership by resident individuals for each type of company in 1967 was the same as in 1964. Table 6-2 shows the implications of this assumption (together with data on the total amount of dividends paid to foreign investors) on the distribution of cash dividends

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<sup>4/</sup> John Bossons, Rates of Return on Canadian Common Stocks: Dividends, Retentions, and Goodwill Gains, Studies of the Royal Commission on Taxation, Number 27 (Ottawa: Queen's Printer, 1967), chapter 3. Factors affecting the extrapolatability of these estimates are discussed in ibid., pages 33-37.

Table 6-1

AVERAGE SHARE OF NET DIVIDENDS  
ALLOCABLE TO DIFFERENT TYPES  
OF INVESTORS, 1964  
(per cent)

	<u>Foreign Investors</u>	<u>Institutions</u>	<u>Resident Individuals</u>
Companies in extractive industries:			
Foreign-owned large private cos.	100.0%	--	--
Large widely-held companies	63.8	7.6	28.6
Other companies	48.1	--	51.9
Large cos. in other industries:			
Foreign-owned private companies	100.0	--	--
Canadian-owned private companies	--	--	100.0
Widely-held non-financial cos.	54.6	9.5	35.9
Banks and insurance companies	40.3	12.5	47.2
Trust and mortgage loan cos.	41.2	12.3	46.5
Small companies in other industries:			
Companies with taxable income of less than \$35,000	19.6	--	80.4
Other companies	36.7	--	63.3
ALL COMPANIES	54.4	5.6	40.0

Source : Appendix D, Table D-9



Table 6-2

DISTRIBUTION OF CASH DIVIDENDS PAID  
TO DIFFERENT INVESTORS, 1967  
(millions of dollars)

	<u>Foreign Investors</u>	<u>Financial Institutions</u>	<u>Resident Individuals</u>	<u>Total</u>
Companies in the extractive industries:				
Foreign-owned large private companies	26.5	--	--	26.5
Large widely-held companies	113.1	96.9	61.3	271.3
Small companies	<u>38.8</u>	<u>--</u>	<u>50.2</u>	<u>89.0</u>
Total	<u>178.4</u>	<u>96.9</u>	<u>111.5</u>	<u>386.8</u>
Large companies not in the extractive industries:				
Foreign-owned private companies	152.8	--	--	152.8
Canadian-owned private cos.	--	--	41.8	41.8
Widely-held non-financial cos.	304.4	382.4	241.8	928.6
Financial corporations	<u>31.4</u>	<u>7.7</u>	<u>43.9</u>	<u>83.0</u>
Total	<u>488.6</u>	<u>390.1</u>	<u>327.5</u>	<u>1,206.2</u>
Small companies not in the extractive industries:				
Private cos. with taxable incomes below \$35,000	8.1	--	40.6	48.7
Other small private cos.	54.6	--	113.4	168.0
Small widely-held corporations	<u>38.3</u>	<u>--</u>	<u>85.1</u>	<u>123.4</u>
Total	<u>101.0</u>	<u>--</u>	<u>239.1</u>	<u>340.1</u>
ALL COMPANIES	768.0	487.0	678.1	1,933.1

Notes: Using data in Appendix D, Tables D-7 and D-9, dividend payments to resident individuals have been estimated by distributing total cash dividends over companies within industry groups in proportion to total dividend payments of such companies in 1964, and then using ratios of cash dividends allocable to resident individuals in 1964 to total 1964 dividends paid by companies in each industry to determine dividends paid to resident individuals. Dividend payments to non-residents were initially estimated in the same way, and then uniformly adjusted to force the total shown for non-resident dividends to equal total dividend payments to non-residents reported in Dominion Bureau of Statistics, National Income and Expenditure Accounts, 1926-1968 (Ottawa: Queen's Printer, 1969), Table A. Dividends paid to financial institutions were estimated as residuals within each industry in order to force total dividends shown for each industry group to add to aggregate dividend payments (net of intercorporate dividends) shown in Table 3-6 above.



paid to different investors after allowing for intercorporate dividends in 1967. The estimate for aggregate dividends paid by all companies to resident individual shareholders shown in Table 6-2 is somewhat large, but not inconsistent with data available on the receipt of dividends by resident individuals.<sup>5/</sup> Dividends paid to non-residents were initially estimated as in Appendix D, and then adjusted to make the total accord with data on total payments of dividends to non-residents reported in the National Accounts.

The distribution of dividends among the different types of investors shown in Table 6-2 is unsatisfactory in several respects. In particular, the share of dividends going to financial institutions implies a rate of growth in dividends received by such institutions between 1964 and 1967 which is remarkably high.<sup>6/</sup> It is of course quite possible that a change of this magnitude did occur in the amount of dividends received by financial institutions. A substantial shift from foreign investors to financial institutions did occur between 1964 and 1967, even though probably not of the magnitude indicated by Table 6-2. The interesting thing about Table 6-2 is that the estimates as they stand indicate that the bulk of the repatriation of previously foreign owned securities which has taken place in the last few years has occurred primarily

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<sup>5/</sup> Total dividends reported on personal income tax returns filed by resident individuals amounted to \$600.8 million 1967. See Department of National Revenue, 1969 Taxation Statistics: Individual Income Tax Returns for 1967 (Ottawa: Queen's Printer, 1969), Table 2. As is noted below in Table 6-5, these estimates imply that dividends unreported by individuals amounted to approximately \$55 million in 1967, an estimate which would be consistent with other evidence on the size of unreported dividends. See John Bossons, "On the measurement of unreported dividends and corporate profits in Canada," Working Paper 6701 (University of Toronto: Institute for Policy Analysis, 1967).

<sup>6/</sup> The apparently too high rate of growth of dividends received by financial institutions may be accounted for by errors in the data either for 1967 or for 1964. It is also possible that it may be accounted for by an understatement of intercorporate dividends in 1967, though the estimates for 1967 obtained from the far more extensive research on differences between reported and taxable income undertaken by the Dominion Bureau of Statistics for that year should be more reliable than those presented in Appendix D for 1964.

as a result of the increased participation by financial institutions in the market for common stock.

The corporation income and taxes accrued by Canadian companies which were allocable to Canadian resident individual shareholders in 1967 are shown in Table 6-3. The estimates presented in this table are based on the corresponding aggregate estimates for corporations presented earlier in Chapter 3, distributed over different types of shareholders and over different types of companies within each of the three industries analysed separately in Chapter 3 using the 1964 data presented in Appendix D. As this table indicates, corporation income taxes allocable to resident individual shareholders in 1967 would have increased by approximately \$450 million, an increase of 42 per cent compared to the average increase of 35 per cent allocable to all shareholders as estimated earlier in Chapter 3. The reason for the higher percentage increase for resident shareholders is of course the concentration of resident share ownership in companies in which the dual rate of tax is proportionately more important. The corporate tax increase allocable to resident individuals would, if unaccompanied by integration of the corporation and personal income taxes, have resulted in a 12 per cent reduction in after-tax accrued income for resident individual shareholders.

In examining the impact of the white paper proposals on the after-tax income received or allocable to resident individual shareholders, it is necessary to take account of the effects of the changes in personal income tax as well as the corporation income tax changes which have been analyzed earlier. To do this, it is necessary to obtain estimates corresponding to those presented in Tables 6-2 and 6-3 for more detailed components of accrued income which are taxed in different ways under the current tax system or which would be taxed in different ways under the proposed tax system. Table 6-4 presents some estimates of the distribution of cash dividends received by resident individual shareholders over different



Table 6-3

TOTAL INCOME AND TAXES ACCRUED BY  
CANADIAN COMPANIES ALLOCABLE  
TO RESIDENT INDIVIDUAL SHAREHOLDERS, 1967  
(millions of dollars)

	<u>Taxable Income</u>		<u>Total Accrued Income</u>	<u>Corporate Taxes</u>	
	<u>Current</u>	<u>Proposed</u>		<u>Current</u>	<u>Proposed</u>
Companies in the extractive industries:					
Large widely-held companies	98.6	197.3	315.7	50.2	98.7
Small companies	<u>19.4</u>	<u>27.0</u>	<u>80.5</u>	<u>5.6</u>	<u>13.5</u>
Total	<u>118.0</u>	<u>224.3</u>	<u>396.2</u>	<u>55.8</u>	<u>112.2</u>
Large companies not in the extractive industries:					
Private companies	173.3	193.2	229.5	90.0	96.6
Widely-held non-financial corporations	498.6	562.5	743.2	258.1	281.3
Financial corporations	<u>187.7</u>	<u>227.1</u>	<u>347.0</u>	<u>89.0</u>	<u>113.5</u>
Total	<u>859.6</u>	<u>982.8</u>	<u>1,319.7</u>	<u>437.1</u>	<u>491.4</u>
Small companies not in the extractive industries:					
Private companies with taxable incomes below \$35,000	466.8	508.6	695.9	100.4	254.3
Other small private companies	671.0	701.4	610.5	268.7	350.7
Small widely-held companies	<u>564.5</u>	<u>612.7</u>	<u>605.3</u>	<u>205.7</u>	<u>306.3</u>
Total	<u>1,702.3</u>	<u>1,822.7</u>	<u>1,911.7</u>	<u>574.8</u>	<u>911.3</u>
ALL COMPANIES	2,679.9	3,029.8	3,627.6	1,067.7	1,514.9

## Notes:

1. The basic estimates underlying this table were obtained by using the 1964 data presented in Appendix D, Tables D-7 through D-11, to prorate the aggregate estimates for 1967 presented in Tables 3-1, 3-2, and 3-5 for the three industry groups shown separately in those tables over different types of companies falling within each industry. In allocating amounts for smaller companies between widely-held and private companies, it was assumed that 80 per cent of profitable companies under taxable incomes of less than \$35,000 were private and that 60 per cent of other small companies were private, in both cases, weighted by dollar amounts.
2. Currently taxable income was distributed over companies within industries in proportion to 1964 current year profits, and then allocated between resident individuals and other investors using the estimates of fractional resident individual ownership obtained from Appendix D, Tables D-7 and D-10.
3. Taxable income allocable to resident individual shareholders under the White Paper proposals was estimated following the same general procedure for each addition to the tax base but using different prorating variables. Realized net capital gains, the affect of new rules governing deduction of exploration and development expenses by non-operators, and "other additions (net)" were prorated using 1964 current year profits; the effects of constructive realization of net unrealized gains and of the allowance for surtax on dividends of widely-held companies received by private companies were prorated using exempt dividends received; exempt mining income and the effects of revisions in depletion allowances were prorated using the 1964 distribution of the total of exempt mining income and depletion allowances deducted.
4. The adjustments (presented in Table 3-5) necessary to derive total accrued income from the proposed tax base were likewise prorated by different variables: losses of unprofitable companies by the same item in 1964, the difference between capital cost allowances and both depreciation by total 1964 capital cost allowances, excess mine development expense claimed by 1964 total mine development expense, remaining depletion by total 1964 exempt mining income and depletion allowances, exempt dividends and unrealized goodwill gains on shares of widely-held companies by 1964 exempt dividends, and often items by 1964 current year profits. Current corporation income taxes were prorated by 1964 corporation income taxes.

Table 6-4

CASH DIVIDENDS PAID BY CANADIAN COMPANIES  
TO RESIDENT INDIVIDUAL SHAREHOLDERS IN 1967  
(millions of dollars)

	Paid by profitable companies		Paid by loss cos.	Total cash dividends
	Out of taxed income	Out of untaxed income		
Companies in the extractive industries:				
Large widely-held companies	31.0	14.4	15.9	61.3
Small companies	<u>30.1</u>	<u>14.0</u>	<u>6.1</u>	<u>50.2</u>
Total	<u>61.1</u>	<u>28.4</u>	<u>22.0</u>	<u>111.5</u>
Large companies not in the extractive industries:				
Private companies	30.9	2.8	8.1	41.8
Widely-held non-financial corporations	217.0	19.4	5.4	241.8
Financial corporations	<u>23.7</u>	<u>13.2</u>	<u>7.0</u>	<u>43.9</u>
Total	<u>271.6</u>	<u>35.4</u>	<u>20.5</u>	<u>327.5</u>
Small companies not in the extractive industries				
Private companies with taxable incomes below \$35,000	37.3	3.3	--	40.6
Other small private companies	104.1	9.3	--	113.4
Small widely-held companies	<u>78.1</u>	<u>7.0</u>	<u>--</u>	<u>85.1</u>
Total	<u>219.5</u>	<u>19.6</u>	<u>--</u>	<u>239.1</u>
ALL COMPANIES	552.2	83.4	42.5	678.1

Notes: Dividends paid by loss companies were estimated using estimates of 1964 dividend payments by such companies presented in Appendix D, Tables D-7 and D-9. Dividends paid by profitable companies out of income which would be taxed under the White Paper proposals were estimated by first calculating for each industry from data presented in Table 3-6 the ratio of taxed income to total accrued income plus losses of unprofitable companies and then applying this ratio to total dividends paid by profitable companies. Dividends paid out of untaxed income were calculated as a residual.



sources of the underlying income. The estimates presented in Table 6-4 enable us to separate out dividends carrying potential credit for corporation income tax under the white paper proposals from dividends which are paid out of untaxed income. Additional data on the distribution of dividends and on additional cash distributions arising subsequent to capitalizations of undistributed surplus under Section 105 of the Income Tax Act are presented in Table 6-5. The relationship between all of these components of cash distributions is described in Appendix C in more detail.

Estimates of the total before-tax income accrued by resident individual shareholders in Canadian corporations of different types are presented in Table 6-6. It is assumed that the relative importance of accrued goodwill gains is significantly less for small companies than for large companies, at least in industries other than the extractive industries. It is also interesting to note the very substantially lower pay-out ratios of smaller companies.

Table 6-5

TOTAL CASH DISTRIBUTIONS FROM CANADIAN COMPANIES  
TO RESIDENT INDIVIDUAL SHAREHOLDERS, 1967  
(millions of dollars)

	Cash dividends received by resident individuals		Section 105 capitalization of surplus	Total cash distributions
	Reported on tax returns	Unreported on tax returns		
Companies in the extractive industries:				
Large widely-held companies	54.5	6.8	--	61.3
Small companies	<u>44.7</u>	<u>5.5</u>	<u>--</u>	<u>50.2</u>
Total	<u>99.2</u>	<u>12.3</u>	<u>--</u>	<u>111.5</u>
Large companies not in the extractive industries:				
Private companies	41.8	--	11.6	53.4
Widely-held non-financial corporations	215.0	26.8	--	241.8
Financial corporations	<u>39.1</u>	<u>4.8</u>	<u>--</u>	<u>43.9</u>
Total	<u>295.9</u>	<u>31.6</u>	<u>11.6</u>	<u>339.1</u>
Small companies not in the extractive industries:				
Private companies with taxable incomes below \$35,000	40.6	--	11.2	51.8
Other small private companies	113.4	--	31.3	144.7
Small widely-held companies	<u>75.7</u>	<u>9.4</u>	<u>--</u>	<u>85.1</u>
Total	<u>229.7</u>	<u>9.4</u>	<u>42.5</u>	<u>281.6</u>
ALL COMPANIES	624.8	53.3	54.1	732.2

Notes: Cash dividends paid and subsequently reported on tax returns were assumed to total to 104 per cent of dividends reported on 1967 individual tax returns tabulated in Department of National Revenue, 1969 Taxation Statistics -- Individual Tax Returns for 1967 (Ottawa: Queen's Printer, 1969); the additional adjustments reflecting primarily the effect of changes in dividends declared but not paid over 1967. Total unreported dividends were then estimated from this estimate and from the estimate of total dividends paid to resident individuals presented in Table 6-4; this total was distributed over widely-held companies of different types in proportion to total dividends paid to resident individual shareholders of such companies. Reported dividends for each company were estimated as a residual. Total Section 105 capitalizations were estimated based on an unpublished estimate for 1964 extrapolated to 1967 in proportion to the growth of total dividend payments between 1964 and 1967; this total was distributed over private companies in proportion to dividends paid.

Table 6-6

COMPONENTS OF TOTAL BEFORE-TAX INCOME  
ACCruED BY RESIDENT INDIVIDUAL SHAREHOLDERS  
IN CANADIAN CORPORATIONS, 1967  
(millions of dollars)

	<u>Cash Distri- bution</u>	<u>Retained Before-Tax Earnings Accrued by Corporations</u>	<u>Accrued Goodwill Gains</u>	<u>Total Accrued Income Before- Tax</u>
Companies in the extractive industries:				
Large widely-held companies	61.3	254.4	79.1	394.8
Small companies	<u>50.2</u>	<u>30.3</u>	<u>64.8</u>	<u>145.3</u>
TOTAL	<u>111.5</u>	<u>284.7</u>	<u>143.9</u>	<u>540.1</u>
Large companies not in the extractive industries:				
Private companies	53.4	176.1	45.9	275.4
Widely-held non-financial corporations	241.8	501.4	321.6	1,064.8
Financial corporations	<u>43.9</u>	<u>303.1</u>	<u>58.4</u>	<u>405.4</u>
TOTAL	<u>339.1</u>	<u>980.6</u>	<u>425.9</u>	<u>1,745.6</u>
Small companies not in the extractive industries:				
Private companies with taxable income below \$35,000	51.8	644.1	77.7	773.6
Other small private companies	144.7	465.8	121.6	732.1
Small widely-held companies	<u>85.1</u>	<u>520.2</u>	<u>73.2</u>	<u>678.5</u>
TOTAL	<u>281.6</u>	<u>1,630.1</u>	<u>272.5</u>	<u>2,184.2</u>
ALL COMPANIES	732.2	2,895.4	842.3	4,469.9

Notes: Cash distributions are obtained from Table 6-5. Retained before-tax accrued earnings are obtained by subtracting cash distributions from total accrued income, obtained from Table 6-3. Accrued goodwill gains for large corporations were estimated by extrapolating 1955-64 ratios of goodwill gains to distributions obtained from John Bossons, Rates of Return on Canadian Common Stocks: Dividends, Retentions, and Goodwill Gains, Studies of the Royal Commission on Taxation, Number 27 (Ottawa: Queen's Printer, 1967), Table 10. These estimates imply that goodwill gains for such companies were approximately 35 per cent of income accrued at the corporate level allocable to resident individual shareholders. Other estimates of goodwill gains were obtained by assuming the ratio of accrued goodwill gains to corporate accrued income to be 11.2 per cent for small profitable companies under taxable incomes below \$35,000 and to be 20 per cent for other small companies.

## 6.2 Cash Distributions Received by Resident Individuals

The data presented in the preceding section on the aggregate amounts of dividends and income allocable to resident individuals were used as the basis for estimating the amount of dividends and corporate source income allocable to each resident individual analyzed. The basis for allocating an income and cash distributions to individuals was for the most part the distribution of presently reported cash dividends. Although a number of adjustments were made to take advantage of additional information which could be obtained for individual taxpayers, the essential method used in allocating corporate income was to assume that differences among individual portfolios would be a function only of the incidence of unreported dividends and section 105 distributions.

Three elements of cash distributions were estimated separately: presently reported cash dividends (obtained directly from the tax returns analyzed), unreported dividends, and section 105 distributions. Unreported dividends were estimated as a function partly of the amount of dividends received and partly of total income; in addition, unreported dividends were assumed to be particularly prevalent among non-taxpayers. Section 105 distributions were distributed over upper income taxpayers in proportion to reported dividends.

The distribution of cash distributions of different types over resident individuals is shown in Table 6-7. As might be expected, the distribution both of dividend receipts and of total cash distributions is heavily weighted towards the upper income group; more than half of total cash distributions received by resident individuals in 1969 were received by residents with accrued income of more than \$50,000.

The allocation of cash distributions received by individuals in each income class among different types of



Table 6-7

CASH DISTRIBUTIONS FROM CANADIAN CORPORATIONS  
RECEIVED BY RESIDENT INDIVIDUALS FILING TAX RETURNS, 1969  
(thousands of dollars)

<u>Income Class</u>	<u>Presently Reported Cash Dividends</u>	<u>Unreported Dividends</u>	<u>Section 105 Capital Distributions</u>	<u>Total Cash Distributions</u>
Less than \$1,000	460	3,878	19	4,357
\$ 1,000 - \$ 1,999	997	3,864	--	4,861
2,000 - 2,999	1,488	2,698	--	4,186
3,000 - 3,999	3,719	2,124	--	5,843
4,000 - 4,999	5,494	1,700	--	7,194
5,000 - 5,999	6,255	1,065	--	7,320
6,000 - 7,999	19,535	2,065	--	21,601
8,000 - 9,999	21,266	1,526	--	22,791
10,000 - 11,999	20,813	1,215	--	22,028
12,000 - 14,999	29,269	1,447	--	30,715
15,000 - 19,999	38,104	1,508	1	39,613
20,000 - 24,999	38,174	1,213	--	39,686
25,000 - 34,999	59,032	1,439	84	60,555
35,000 - 49,999	74,740	1,199	1,296	77,236
50,000 - 74,999	88,348	322	3,861	92,531
75,000 - 99,999	50,708	11	4,606	55,324
100,000 - 149,999	61,152	9	9,899	71,060
150,000 - 199,999	42,461	7	10,006	52,474
200,000 - 299,999	54,290	--	12,960	67,249
300,000 and Over	108,461	--	25,507	133,968
ALL CLASSES	724,766	27,290	68,239	820,592

Source: Computer analysis of tax return sample.

Notes: Individuals are classified by total accrued net income, including income which would remain untaxed under the federal white paper proposals. Figures may not add to totals due to rounding.

companies is based on data presented in the preceding section. For each type of cash distribution, totals received by each individual are assumed to be pro-rated over different types of companies in proportion to the relationships among aggregate amounts shown in Table 6-5. (In addition, in allocating cash distributions by companies in the extractive industries, some special adjustments were made to take into account data on shareholder depletion deducted). The resulting total cash distributions assumed to be received by resident individuals in different income classes were distributed between private and widely-held companies as shown in Table 6-8; this and other tables presented in this chapter are aggregated from more detailed distributional tables computed from the tax return sample.

Table 6-8

CASH DISTRIBUTIONS FROM DIFFERENT  
TYPES OF COMPANIES  
(thousands of dollars)

<u>Income Class</u>	<u>Presently Reported Cash Dividends</u>	<u>Unreported Dividends</u>	<u>Section 105 Capital Distributions</u>	<u>Total Cash Distributions</u>
<u>PRIVATE COMPANIES</u>				
Less than \$3,000	923	--	19	942
\$ 3,000 - 5,999	4,847	--	--	4,847
6,000 - 9,999	12,786	--	--	12,786
10,000 - 14,999	15,695	--	--	15,695
15,000 - 24,999	23,904	--	1	23,905
25,000 - 49,999	41,919	--	1,381	43,300
50,000 - 99,999	43,344	--	8,470	51,807
Over \$100,000	80,525	--	58,371	138,896
ALL CLASSES	<u>223,943</u>	<u>---</u>	<u>68,242</u>	<u>292,178</u>
<u>WIDELY-HELD COMPANIES</u>				
Less than \$3,000	2,022	10,439	--	12,461
\$ 3,000 - 5,999	10,620	4,888	--	15,509
6,000 - 9,999	28,015	3,591	--	31,606
10,000 - 14,999	34,387	2,661	--	37,049
15,000 - 24,999	52,374	2,720	--	55,094
25,000 - 49,999	91,853	2,638	--	94,491
50,000 - 99,999	95,717	332	--	96,049
Over \$100,000	185,839	16	--	185,855
ALL CLASSES	<u>500,827</u>	<u>27,287</u>	<u>---</u>	<u>528,114</u>
TOTAL	724,770	27,287	68,242	820,292

Source: Computer analysis of tax return sample.

Note: Figures may not add to totals due to rounding.

### 6.3 Shareholder Income Before Personal Income Taxes

Having allocated cash distributions, other elements of accrued shareholder income were allocated to resident individuals on the basis of the relationship of corporate income and taxes to cash distributions for each type of company analyzed in Section 6.1. The resultant distribution of elements of total before-tax income accrued by corporations is shown in Table 6-9. Taxes paid by corporations which are allocable to resident individual shareholders filing tax returns in 1969 are shown in Table 6-10.

The allocation of goodwill gains to resident individual shareholders is based on much the same estimating procedure as that for the allocation of corporation income and taxes. Once having estimated total cash distributions received by an individual on the basis of the information available from his tax return, goodwill gains have been assumed to be in the same proportion to cash distributions received from each company as has been estimated to be the case in the aggregate. The resultant estimates of total income accrued for personal income tax by resident individual shareholders are shown in Table 6-11.

The estimates of total income accrued before personal taxes which are shown in Table 6-11 reflect the effect both of current corporation income taxes and of changes in taxes at corporate level. As can be seen by comparing Table 6-11 with Table 6-9, total income accrued shown in Table 6-11 is on the average approximately 60 per cent of total accrued income before all taxes in the case of private companies and is approximately 68 per cent of total accrued income before-tax in the case of widely-held companies. The higher ratio of accrued income after corporation income tax to total before tax accrued income in the case of widely-held companies reflects the greater importance of goodwill gains.



Table 6-9

BEFORE TAX CORPORATE INCOME ALLOCABLE TO RESIDENT  
INDIVIDUALS FILING TAX RETURNS, 1969  
(thousands of dollars)

<u>Corporate Income Before Tax</u>				
<u>Income Class</u>	<u>Currently Taxable</u>	<u>Addition to Tax Base from Proposed Reform</u>	<u>Other Untaxed Income</u>	<u>Total Corporate Income before Tax</u>
<u>PRIVATE COMPANIES</u>				
Less than \$3,000	4,944	347	500	5,791
\$3,000 - \$ 5,999	25,434	1,787	2,574	29,795
\$6,000 -   9,999	67,091	4,712	6,790	78,594
\$10,000 - 14,999	82,351	5,784	8,335	96,470
\$15,000 - 24,999	125,432	8,810	12,695	146,937
\$25,000 - 49,999	227,193	15,958	22,994	266,146
\$50,000 - 99,999	271,848	19,096	27,514	318,458
over \$100,000	<u>728,642</u>	<u>51,189</u>	<u>73,751</u>	<u>853,582</u>
ALL CLASSES	<u>1,532,935</u>	<u>107,684</u>	<u>155,153</u>	<u>1,795,772</u>
<u>WIDELY-HELD COMPANIES</u>				
Less than \$3,000	35,368	6,658	12,016	54,041
\$3,000 - \$ 5,999	44,016	8,289	14,955	67,261
\$6,000 -   9,999	89,699	16,894	30,479	137,072
\$10,000 - 14,999	105,146	19,804	35,727	160,677
\$15,000 - 24,999	156,361	29,450	53,130	238,941
\$25,000 - 49,999	268,156	50,513	91,127	409,796
\$50,000 - 99,999	271,241	51,661	93,063	415,965
over \$100,000	<u>510,721</u>	<u>103,290</u>	<u>184,661</u>	<u>798,671</u>
ALL CLASSES	<u>1,480,707</u>	<u>286,559</u>	<u>515,158</u>	<u>2,282,424</u>
TOTAL	3,013,642	394,243	670,311	4,078,196

Source: Computer analysis of tax return sample.

Note: Figures may not add to totals due to rounding.

Table 6-10

TAXES PAID BY CORPORATIONS ALLOCABLE TO  
RESIDENT INDIVIDUALS FILING TAX RETURNS, 1969  
(thousands of dollars)

<u>Income Class</u>	<u>Current Taxes</u>	<u>Taxes on Section 105 Distributions</u>	<u>Proposed Taxes</u>	<u>Change in Corporate Taxes</u>
<u>PRIVATE COMPANIES</u>				
Less than \$3,000	1,731	3	2,646	912
\$3,000 - \$ 5,999	8,905	0	13,610	4,705
\$6,000 - 9,999	23,491	0	35,902	12,411
\$10,000 - 14,999	28,834	0	44,068	15,234
\$15,000 - 24,999	43,918	0	67,121	23,203
\$25,000 - 49,999	79,549	207	121,576	41,820
\$50,000 - 99,999	95,189	1,270	145,472	49,012
over \$100,00	<u>255,166</u>	<u>8,756</u>	<u>389,916</u>	<u>125,994</u>
ALL CLASSES	<u>536,782</u>	<u>10,236</u>	<u>820,309</u>	<u>273,291</u>
<u>WIDELY-HELD COMPANIES</u>				
Less than \$3,000	15,726	0	21,013	5,286
\$3,000 - \$ 5,999	19,571	0	26,153	6,582
\$6,000 - 9,999	39,882	0	53,297	13,414
\$10,000 - 14,999	46,750	0	62,475	15,725
\$15,000 - 24,999	69,521	0	92,905	23,384
\$25,000 - 49,999	119,228	0	159,334	40,107
\$50,000 - 99,999	120,622	0	161,451	40,830
over \$100,000	<u>227,357</u>	<u>0</u>	<u>307,009</u>	<u>79,652</u>
ALL CLASSES	<u>658,657</u>	<u>0</u>	<u>883,638</u>	<u>224,980</u>
 TOTAL	 1,195,439	 10,236	 1,703,947	 498,271

Source: Computer analysis of tax return sample.

Note: Figures may not add to totals due to rounding.

Table 6-11

TOTAL INCOME ACCRUED BEFORE PERSONAL INCOME TAX BY RESIDENT INDIVIDUALS FILING TAX RETURNS, 1969  
(thousands of dollars)

Income Class	Total Cash		Current Retained Earnings	Change in Retained Earnings due to Corporate Tax Changes		Goodwill Gains Accrued	Total Income Accrued After Corporate Taxes but Before Personal Taxes	
	Distributions							
PRIVATE COMPANIES								
Less than \$3,000	942	3,115	-912	924	4,070			
\$3,000 - \$ 5,999	4,847	16,042	-4,705	4,756	20,940			
\$6,000 - 9,999	12,786	42,317	-12,411	12,545	55,237			
\$10,000 - 14,999	15,695	51,942	-15,234	15,398	67,801			
\$15,000 - 24,999	23,905	79,114	-23,203	23,454	103,270			
\$25,000 - 49,999	43,300	143,090	-41,820	42,482	187,052			
\$50,000 - 99,999	51,807	170,185	-49,012	50,834	223,820			
over \$100,000	138,896	450,763	-125,994	136,263	599,929			
ALL CLASSES	292,178	956,568	-273,291	286,656	1,262,119			
WIDELY-HELD COMPANIES								
Less than \$3,000	12,461	25,854	-5,286	17,447	50,476			
\$3,000 - \$ 5,999	15,509	32,181	-6,582	21,715	62,823			
\$6,000 - 9,999	31,606	65,584	-13,414	44,253	128,028			
\$10,000 - 14,999	37,049	76,878	-15,725	51,874	150,076			
\$15,000 - 24,999	55,094	114,325	-23,384	77,141	223,176			
\$25,000 - 49,999	94,491	196,077	-40,107	132,301	382,762			
\$50,000 - 99,999	96,049	199,295	-40,830	134,400	388,914			
over \$100,000	185,855	385,459	-79,652	259,190	750,852			
ALL CLASSES	528,114	1,095,653	-224,980	738,320	2,137,106			
TOTAL	820,292	2,052,221	-498,271	1,024,976	3,399,225			

Source: Computer analysis of tax return samples.

Note: Figures may not add to totals due to rounding.

#### 6.4 Effect of Integration

The white paper proposals for integration of the personal and corporate income taxes are complex, and in particular differ depending upon whether companies are closely-held or widely-held. Since the data that has been assembled and allocated to individuals on corporate incomes, taxes, and cash distributions has been obtained separately for private and widely-held companies, the calculation of the effects of integration is actually relatively straightforward. The nature of the tax base arising as a result of integration is described in detail in Appendix C.

The effect on personal income taxes of the white paper integration proposals is shown in Table 6-12. Dividends paid out of taxed corporate income are assumed to bear full credit for the corporation income tax. In addition, additional amounts of taxed corporate income are assumed to be allocated to shareholders through stock dividends. (In the case of closely-held companies, it is assumed that 100 per cent of after-tax retentions are allocated to shareholders; in the case of widely-held companies, 75 per cent.) Different assumptions could be made about the effect of integration upon the use of stock dividends and upon the extent of allocation of taxed corporate income; some tests of the effect of changes in assumptions about pay-out ratios are provided in section 6.6.

The amount of corporation income tax allocated to shareholders is shown in column 3 of Table 6-12. Together with dividends paid out of taxed corporate income and allocated after tax retentions, the credited corporation income tax is added to the shareholder's tax base in computing his gross personal income tax. The total taxable income as allocated to shareholders in different income classes from the two types of companies are shown in the fourth column of the table. As Table 6-12 indicates, the corporate tax credits allocated to



Table 6-12

ADDITIONS TO INCOME AND TAXES PAYABLE AS A RESULT OF INTEGRATION  
(thousands of dollars)

Income Class	Dividends Paid	Allocated after-Tax Retentions	Additional before Tax Corporate Income Allocated	PRIVATE COMPANIES		Effective Marginal Tax Rate	Gross Personal Tax on Allocated Income	Credit for Allocated Corporate Tax	Net Personal Tax on Allocated Income
				Total Taxable Income Allocated	5,132				
Less than \$ 3,000	831	1,735	2,566	5,132	0.092	473	2,566	-2,093	
\$ 3,000 - 5,999	4,266	8,937	13,202	26,404	0.208	5,490	13,202	-7,713	
6,000 - 9,999	11,252	23,573	34,825	69,649	0.270	18,817	34,825	-16,008	
10,000 - 14,999	13,811	28,935	42,746	85,491	0.312	26,665	42,746	-16,080	
15,000 - 24,999	21,036	44,071	65,107	130,215	0.357	46,432	65,107	-18,676	
25,000 - 49,999	38,268	79,660	117,929	235,857	0.429	101,163	117,929	-16,766	
50,000 - 99,999	46,612	94,496	141,108	282,215	0.494	139,384	141,108	-1,724	
Over \$100,000	129,232	248,986	378,218	756,436	0.512	386,943	378,218	8,725	
ALL CLASSES	265,307	530,393	795,700	1,591,400	0.456	725,365	795,700	-70,335	

WIDELY-HELD COMPANIES

Less than \$3,000	9,817	7,924	8,871	26,612	0.020	534	8,871	8,337	
\$ 3,000 - 5,999	12,217	9,864	11,040	33,120	0.171	5,663	11,040	5,377	
6,000 - 9,999	24,895	20,102	22,499	67,496	0.266	17,945	22,499	4,554	
10,000 - 14,999	29,182	23,564	26,373	79,119	0.311	24,602	26,373	1,771	
15,000 - 24,999	43,396	35,041	39,219	117,657	0.356	41,837	39,219	2,617	
25,000 - 49,999	74,426	60,096	67,262	201,784	0.426	85,905	67,262	18,643	
50,000 - 99,999	75,473	60,851	68,163	204,487	0.491	100,317	68,163	32,144	
Over \$100,000	144,137	115,240	129,694	389,071	0.511	198,948	129,694	69,255	
ALL CLASSES	413,544	332,682	373,121	1,119,346	0.425	475,751	373,121	102,621	
TOTAL	678,851	863,075	1,168,821	2,710,746	0.443	1,201,116	1,168,821	32,286	

Source: Computer analysis of tax return sample.

Note: Figures may not add due to rounding.

shareholders are 33 per cent of total taxable income allocated in the case of widely-held companies and 50 per cent in the case of private companies.

The gross personal tax on taxable income allocated to shareholders is shown in the sixth column of the table; it is computed by applying the marginal tax rates shown in the fifth column to the total taxable income allocated to each shareholder. The marginal tax rates which are shown in column 5 of the table are actually computed as the ratio of the amounts shown in column 6 to the amounts in column 4 of the table. However, the actual calculation for each tax return is based on applying the average marginal tax rate applicable to corporate source income for each individual, given his other taxable income and assuming corporate source income to be taxed last of all. Corporate source income is thus assumed to be the most marginal source of income, as is done in the estimates presented in the federal white paper.<sup>7/</sup>

The net personal income tax on income of corporations allocated to shareholders is obtained by deducting the credit for the allocated corporate tax from the gross tax shown in column 6. The resultant estimates of the estimated personal tax on allocated income under the white paper proposals is shown in the final column of Table 6-12.

The estimates presented in Table 6-12 provide data on the personal income tax on allocated income under the white paper proposals; the change in personal income tax which would result from their implementation is shown in Table 6-13. As this table indicates, several adjustments to the total tax payable under the proposed tax system are necessary to obtain

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<sup>7/</sup> Cf. Proposals for Tax Reform, op.cit., Table 15.

Table 6-13

CHANGE IN TAXES PAYABLE AS A RESULT OF INTEGRATION  
(thousands of dollars)

Income Class	Net Personal Tax on Allocated Income	Personal Tax on Dividends Paid out of	Total Personal Taxes under Proposal	Current Personal Tax on Dividends	Change in Personal Income Tax
		Untaxed Income		PRIVATE COMPANIES	
less than \$ 3,000	-2,093	9	-2,084	32	-2,116
\$ 3,000 -	-7,713	121	-7,592	526	-8,117
6,000 -	-16,008	415	-15,593	1,765	-17,358
10,000 -	-16,080	588	-15,493	2,463	-17,955
15,000 -	-18,676	1,023	-17,653	4,450	-22,102
25,000 -	-16,766	2,146	-14,620	10,502	-25,122
50,000 -	-1,724	2,552	828	13,258	-12,429
over \$100,000	8,725	4,942	13,666	26,324	-12,657
ALL CLASSES	-70,335	11,796	-58,539	59,319	-117,858
WIDELY-HELD COMPANIES					
less than \$ 3,000	-8,337	53	-8,283	70	-8,354
3,000 -	-5,377	563	-4,814	1,152	-5,966
6,000 -	-4,554	1,784	-2,770	3,867	-6,636
10,000 -	-1,771	2,446	675	5,396	-4,721
15,000 -	2,617	4,160	6,777	9,749	-2,972
25,000 -	18,643	8,542	27,185	23,013	4,172
50,000	32,144	10,097	42,240	29,313	12,927
over \$100,000	69,255	21,333	90,588	61,164	29,424
ALL CLASSES	102,621	48,978	151,598	133,724	17,873
TOTAL	32,286	60,774	93,059	193,043	-99,985

Source: Computer analysis of tax return sample.

Note: Figures may not add to totals due to rounding.

the change in tax that they imply. Total personal taxes under the proposed tax system are the sum of the net personal tax payable on allocated taxed corporate income plus taxes payable on dividends paid out of untaxed income. The current marginal tax on dividends is based on applying marginal rates calculated for the proposed tax system to currently received dividends and allowing for the dividend tax credit.



The change in personal income tax is payable by resident individual shareholders as a result of integration of the personal and corporation incomes taxes as shown in Table 6 - 13. Net personal taxes under the proposed tax system would include personal taxes on allocated income previously taxed at the corporate level; in addition, it would include personal income tax levied on dividends paid out of untaxed income. Net personal tax on allocated income would be negative for resident individual shareholders in all but the upper income classes, reflecting the extent of the refund required to place income accrued by corporations on the same basis as other forms of income. Though dividends paid out of untaxed income represent an important portion of total income taxed under the white paper integration proposals, the impact of taxing such income is sufficient merely to render individuals subject to additional tax if their total accrued income is greater than \$50,000.

By contrast, the treatment of widely-held companies would result in additional tax being paid (over and above the corporate tax) by individuals with incomes above \$10,000. Even after taking the elimination of current taxes on dividends into account, resident individual shareholders with accrued incomes above \$25,000 would face a net increase in taxes, compared to the universal reduction in taxes on income accrued by corporations in the case of private companies.<sup>8/</sup>

The important components of the white paper integration proposals are analyzed in Table 6-14. This Table decomposes the tax

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<sup>8/</sup> This sharp differentiation between private and widely-held companies would have substantial potential impact on corporate financing decisions and hence on the distribution of corporate income between the two classes of companies. In addition, through their effect on rates of return on corporate equities and on the attractiveness to non-resident controlled corporations of offering shares to Canadians, the reforms would tend to redistribute corporate income from resident shareholders to non-residents. Cf. John Bossons, "The Effect of Tax Rates on the Impact of Tax Reform," op. cit. We have not attempted to take these subsequent behavioural reactions into account in making our estimates.

Table 6-14

PERSONAL INCOME TAX CHANGES RESULTING FROM EACH  
COMPONENT OF THE WHITE PAPER INTEGRATION PROPOSALS  
(thousands of dollars)

Income Class	Taxing Unreported Dividends	Other Effects of Integration of Current Base	Integration of Additional Corporate Tax Base	Half integration Credit for Public Companies	Total
PRIVATE COMPANIES					
Less than \$3,000	--	-1,979	-137	--	-2,116
\$ 3,000 - \$ 5,999	--	-7,611	-506	--	-8,117
6,000 - 9,999	--	-16,308	-1,051	--	-17,358
10,000 - 14,999	--	-16,900	-1,055	--	-17,955
15,000 - 24,999	--	-20,876	-1,226	--	-22,102
25,000 - 49,999	--	-24,021	-1,100	--	-25,122
50,000 - 99,999	--	-12,316	-113	--	-12,429
Over \$100,000	--	-13,230	573	--	-12,657
ALL CLASSES	--	-113,241	-4,616	--	-117,858
WIDELY-HELD COMPANIES					
Less than \$3,000	81	-14,390	-2,738	8,693	-8,354
\$ 3,000 - \$ 5,999	444	-13,226	-2,337	9,152	-5,966
6,000 - 9,999	834	-20,598	-3,390	16,517	-6,636
10,000 - 14,999	795	-20,480	-3,209	18,173	-4,721
15,000 - 24,999	915	-25,516	-3,646	25,274	-2,972
25,000 - 49,999	1,041	-32,279	-3,217	38,627	4,172
50,000 - 99,999	146	-21,529	-418	34,727	12,927
Over \$100,000	7	-34,957	998	63,376	29,424
ALL CLASSES	4,265	-182,974	-17,956	214,538	17,873
TOTAL	4,265	-296,215	-22,572	214,538	-99,985

Source: Computer analysis of tax return sample.  
Note: Figures may not add to totals due to rounding.

change arising from integration into components which provide a more analytical insight into the nature of the white paper integration proposals. The first column of this Table indicates the relatively minor importance of taxing unreported dividends. The second column shows what the effect would be of full integration of the personal and corporate income taxes on the taxation of currently taxed corporate income. The third column indicates the additional impact of integrating the proposed additions to the corporate tax base. These first three sets of estimates, when taken together, provide an estimate of the revenue cost of full integration, as proposed by the Carter Royal Commission on Taxation. The fourth column shows the effect of extending only partial integration to public companies. As Table 6 - 14 indicates, this latter part of the white paper proposals removes approximately two thirds of the revenue loss one might normally expect to be associated with integration of the corporate and personal income taxes.

6.5 Taxes on Capital Gains

As has already been indicated, capital gains on corporate common stock arise from a number of sources. Estimates of the capital gains accrued by resident individual shareholders are provided in Table 6-15. As this Table indicates, approximately 40 per cent of accrued capital gains can be expected to arise from unallocated corporate retentions, including both accrued income untaxed at the corporate level and taxed corporate income which is unallocated under the white paper integration proposals. (It should be noted that total accrued capital gains are being defined as net of allocated corporate retentions; the estimates presented in Table 6-15 are of additional income accrued by resident individual shareholders over and above corporate income allocated to them under them under the white paper integration proposals. The remaining portion of accrued capitals gains are attributable to goodwill gains, which arise for the reasons discussed previously in section 6.1.)

The relationship between the total accrued capital gains shown in Table 6-15F and capital gains which are taxable under the white paper proposals is shown in Table 6-16. It should be noted that the estimates reported in Table 6-16 do not include the effect of taxing capital gains of widely-held companies at half rates; the estimates presented in this Table are of total capital gains subject to tax. As this Table indicates, a substantial amount of capital would normally be unrealized; the effect of this is on the average to make realized capital gains approximately two thirds of accrued capital gains in the absence of tax considerations affecting investment behaviour. Two provisions of the white paper would have a substantial impact on the size of taxable capital gains. The lack of provision for a deemed realization at death for private companies would encourage investors in private companies to defer realization in order to postpone taxes; it is estimated that the effect of a lack of a deemed realization at death would be to reduce realized



Table 6-15

CAPITAL GAINS ON CORPORATE EQUITIES  
ACCRUED BY RESIDENT INDIVIDUAL SHAREHOLDERS, 1969  
(thousands of dollars)

<u>Income Class</u>	<u>Accrued Goodwill Gains</u>	<u>Unallocated Corporate Retentions</u>	<u>Total Accrued Capital Gains</u>
<u>PRIVATE COMPANIES</u>			
Less than \$3,000	924	469	1,393
\$ 3,000 - \$ 5,999	4,756	2,401	7,156
6,000 - 9,999	12,545	6,333	18,878
10,000 - 14,999	15,398	7,773	23,171
15,000 - 24,999	23,454	11,839	35,293
25,000 - 49,999	42,482	21,610	64,092
50,000 - 99,999	50,834	26,676	77,510
Over \$100,000	<u>136,263</u>	<u>75,783</u>	<u>212,046</u>
ALL CLASSES	<u>286,656</u>	<u>152,885</u>	<u>439,539</u>
<u>WIDELY-HELD COMPANIES</u>			
Less than \$3,000	17,447	12,643	30,090
\$ 3,000 - \$ 5,999	21,715	15,736	37,450
6,000 - 9,999	44,253	32,068	76,321
10,000 - 14,999	51,874	37,590	89,464
15,000 - 24,999	77,141	55,900	133,040
25,000 - 49,999	132,301	95,874	228,175
50,000 - 99,999	134,400	97,614	232,014
Over \$100,000	<u>259,190</u>	<u>190,567</u>	<u>449,756</u>
ALL CLASSES	<u>738,320</u>	<u>537,991</u>	<u>1,276,311</u>
<b>TOTAL</b>	1,024,976	690,876	1,715,850

Source: Computer analysis of tax return sample.

Note: Figures may not add to totals due to rounding.

Table 6-16

CAPITAL GAINS REALIZED UNDER THE WHITE PAPER PROPOSALS  
(thousands of dollars)

<u>Income Class</u>	<u>Total Accrued Capital Gains</u>	<u>Gains Current- ly Not Realized</u>	<u>Effect of Lack of Deemed Real- ization at Death for Priv- vate Companies</u>	<u>Effect of Constructive Realization Every 5 Yrs. for Widely- Held Companies</u>	<u>Realized Capital Gains</u>
<u>PRIVATE COMPANIES</u>					
Less than \$3,000	1,393	801	474	--	119
\$3,000 - 5,999	7,156	4,112	2,435	--	609
6,000 - 9,999	18,878	10,848	6,424	--	1,606
10,000 - 14,999	23,171	13,315	7,885	--	1,971
15,000 - 24,999	35,293	20,280	12,010	--	3,003
25,000 - 49,999	64,092	36,821	21,817	--	5,454
50,000 - 99,999	77,510	44,492	26,415	--	6,604
over \$100,000	<u>212,046</u>	<u>121,520</u>	<u>72,421</u>	<u>--</u>	<u>18,105</u>
ALL CLASSES	<u>439,541</u>	<u>252,189</u>	<u>149,881</u>	<u>--</u>	<u>37,470</u>
<u>WIDELY-HELD COMPANIES</u>					
Less than \$3,000	30,090	8,256	--	2,238	24,072
\$3,000 - 5,999	37,450	10,276	--	2,786	29,960
6,000 - 9,999	76,321	20,942	--	5,678	61,057
10,000 - 14,999	89,464	24,548	--	6,655	71,571
15,000 - 24,999	133,040	36,505	--	9,897	106,432
25,000 - 49,999	228,175	62,609	--	16,974	182,540
50,000 - 99,999	232,014	63,645	--	17,242	185,611
over \$100,000	<u>449,756</u>	<u>123,187</u>	<u>--</u>	<u>33,236</u>	<u>359,805</u>
ALL CLASSES	<u>1,276,311</u>	<u>349,968</u>	<u>--</u>	<u>94,706</u>	<u>1,021,049</u>
TOTAL	1,715,852	602,157	149,881	94,706	1,058,519

Source: Computer analysis of tax return sample.

Note: Figures may not add to totals due to rounding.

capital gains of private companies by 75 per cent over what they would normally be.<sup>9/</sup> By contrast, it is estimated that more than 25 per cent of the gap between accruals and normally realized gains would be eliminated by the effect of a constructive realization every five years applied to the shares of widely-held companies.

The revenue consequences of taxing capital gains arising from common stocks are shown in Table 6-17. Taxable capital gains differ from realized capital gains because of the proposed differential reduction in taxable capital gains of widely-held companies. As this table indicates, the total revenue gain from taxing capital gains on common stocks would be \$234 million under the white paper proposals. As with the federal government's estimates, this estimate is based on assuming income on common stocks to be more marginal than any other form of income.

Components of the white paper proposals for taxing capital gains on common stocks owned by resident individuals, again organized in a more analytically useful fashion, are present in Table 6-18. In this Table, the first column shows the effect of taxing goodwill gains at full rates with a deemed realization at death, as proposed by the Carter Royal Commission on Taxation. The white paper proposals modify the Carter proposals in a number of important respects. First, by not requiring constructive realization at death on shares owned by private companies, most of the goodwill gains accrued on private companies would escape tax. Secondly, while the impact of a constructive realization every five years on shares of widely-held companies would raise

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<sup>9/</sup> This estimate may well be conservative. In a study of the effect of the U.S. capital gains tax on investment decisions by U.S. investors, Bailey has estimated that in excess of 80 per cent of capital gains accrued by U.S. investors are unrealized; cf. Martin J. Bailey, "Capital Gains and Income Taxation," in Harberger and Bailey (eds.) Taxation of Income from Capital (Washington: the Brookings Institutions, 1969), pages 15-26. The lock-in effect resulting from the lack of a derealization at death is particularly important in the case of common stocks because of the importance of such assets in the portfolio of wealthy investors, who are normally of greater than average age.

Table 6-17

TAX EFFECTS OF THE TAXATION OF CAPITAL GAINS  
(thousands of dollars)

<u>Income Class</u>	<u>Realized Capital Gains</u>	<u>Taxable Capital Gains</u>	<u>Effective Marginal Tax Rate on Taxable Capital Gains</u>	<u>Tax on Capital Gains</u>
<u>PRIVATE COMPANIES</u>				
Less than \$3,000	119	119	0.093	11
\$ 3,000 - \$ 5,999	609	609	0.208	127
6,000 - 9,999	1,606	1,606	0.270	434
10,000 - 14,999	1,971	1,971	0.312	615
15,000 - 24,999	3,003	3,003	0.357	1,071
25,000 - 49,999	5,454	5,454	0.429	2,340
50,000 - 99,999	6,604	6,604	0.494	3,263
Over \$100,000	18,105	18,105	0.512	9,262
ALL CLASSES	<u>37,470</u>	<u>37,470</u>	<u>0.457</u>	<u>17,122</u>
<u>WIDELY-HELD COMPANIES</u>				
Less than \$3,000	24,072	12,036	0.020	242
\$ 3,000 - 5,999	29,960	14,980	0.171	2,562
6,000 - 9,999	61,057	30,528	0.266	8,117
10,000 - 14,999	71,571	35,786	0.311	11,127
15,000 - 24,999	106,432	53,216	0.356	18,923
25,000 - 49,999	182,540	91,270	0.426	38,856
50,000 - 99,999	185,611	92,806	0.491	45,528
Over \$100,000	359,805	179,903	0.511	91,993
ALL CLASSES	<u>1,021,049</u>	<u>510,524</u>	<u>0.426</u>	<u>217,347</u>
TOTAL	1,058,519	547,994	0.428	234,469

Source: Computer analysis of tax return sample.

Note: Figures may not add to totals due to rounding.



Table 6-18

TAX CHANGES RESULTING FROM EACH COMPONENT  
OF THE WHITE PAPER CAPITAL GAINS TAX PROPOSALS  
FOR RESIDENT INDIVIDUAL SHAREHOLDERS, 1969  
(thousands of dollars)

<u>Income Class</u>	<u>Goodwill Gains</u>	<u>Half Rates on Capital Gains for Public Companies</u>	<u>5 Year Deemed Realization for Public Companies</u>	<u>No Constructive Realization at Death for Private Companies</u>
<u>PRIVATE COMPANIES</u>				
Less than \$3,000	55	0	0	-44
\$3,000 - 5,999	633	0	0	-506
\$6,000 - 9,999	2169	0	0	-1736
\$10,000 - 14,999	3074	0	0	-2459
\$15,000 - 24,999	5353	0	0	-4283
\$25,000 - 49,999	11,702	0	0	-9362
\$50,000 - 99,999	16,315	0	0	-13,052
over \$100,000	<u>46,308</u>	<u>0</u>	<u>—</u>	<u>-37,047</u>
ALL CLASSES	<u>85,611</u>	<u>0</u>	<u>0</u>	<u>-68,489</u>
<u>WIDELY-HELD COMPANIES</u>				
Less than \$3,000	438	-219	22	0
\$3,000 - 5,999	4,647	-2,323	238	0
\$6,000 - 9,999	14,724	-7,362	755	0
\$10,000 - 14,999	20,185	-10,093	1,035	0
\$15,000 - 24,999	34,326	-17,163	1,762	0
\$25,000 - 49,999	70,486	-35,243	3,613	0
\$50,000 - 99,999	82,605	-41,303	4,229	0
over \$100,000	<u>166,991</u>	<u>-83,496</u>	<u>8,497</u>	<u>0</u>
ALL CLASSES	<u>394,402</u>	<u>-197,201</u>	<u>20,150</u>	<u>0</u>
TOTAL	480,013	-197,201	20,150	-68,489

Source: Computer analysis of tax return sample.

Note: Figures may not add to totals due to rounding.

tax revenues relative to what they would be with merely derealization at death, this increase is more than negated by the effect of allowing capital gains on shares of public companies to be taxed at half rates.

## 6.6. Summary of Tax Changes on Shareholder Incomes

The revenue estimates discussed in previous sections of this chapter are summarized in Table 6-19. In addition, changes in corporation income taxes which are allocable to shareholders have been shown in this table, as has the effect of eliminating shareholder depletion, a reform not hitherto discussed.<sup>10/</sup> Total changes in all direct taxes for individuals in a more detailed income classification are shown in Table 6-20, which also includes the effect of eliminating shareholder depletion allowances.

As Table 6-20 indicates, changes in personal income taxes resulting from the white paper proposals for the tax treatment of corporate source income would increase tax revenues by approximately \$142 million. The effect of the increases in corporation income tax revenues (described in chapter 3) which are allocable to resident individual shareholders would be to lower after-tax income accrued by resident individual shareholders by \$498 million. The resultant tax increase of \$640 million allocable to resident individuals on income from shareholdings represents a tax increase of 46 per cent on such income. To put this in other terms, the average effect of the white paper proposals on the taxation of corporate source of income is to reduce average after-tax incomes accrued by resident individual shareholders by approximately 20 per cent.<sup>11/</sup>

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<sup>10/</sup> Our analysis of the effect of shareholders' depletion is based on an allocation of investment expenses and other items shown on individual tax returns. The revenue effect shown in Table 6-19 is limited to the effect of eliminating the depletion allowance for individual shareholders; the effect of the corresponding elimination of non-operator depletion allowance for corporations and institutions has been discussed previously in chapter 3.

<sup>11/</sup> This estimate is based on the estimates of income accrued by shareholders before personal taxes but after current corporate taxes presented in Table 6-11 and upon the estimated personal income taxes on dividends shown in Table 6-13, yielding an estimate of total after-tax income under the current tax system of \$ million. It must be emphasized that the estimate of total tax changes shown in Table 6-19 is based on the marginal impact of only the reforms of the tax treatment of corporate source income and exclude the effective tax increase on corporate source income resulting from the higher tax rates proposed by the white paper.

Table 6-19

TOTAL TAX CHANGES ARISING FROM  
THE IMPORTANT WHITE PAPER PROPOSALS  
AFFECTING INCOME FROM SHAREHOLDINGS  
(thousands of dollars)

Income Class	Current Taxes at the Corporate Level	Current Personal Taxes	Total Current Taxes	Changes in Taxes at the Corporate Level	Changes in Personal Taxes due to Integration	Taxes on Capital Gains	Total Tax Changes	Percentage Change in Taxes
	PRIVATE COMPANIES							
Less than \$3,000	1,731	32	1,763	912	-2,116	11	-1,193	-67.7
\$ 3,000 - \$ 5,999	8,905	526	9,431	4,705	-8,117	127	-3,286	-34.8
6,000 - 9,999	23,491	1,765	25,256	12,411	-17,358	434	-4,513	-17.9
10,000 - 14,999	28,834	2,463	31,296	15,234	-17,955	615	-2,107	-6.7
15,000 - 24,999	43,918	4,450	48,367	23,203	-22,102	1,071	2,172	4.5
25,000 - 49,999	79,549	10,502	90,051	41,820	-25,122	2,340	19,039	21.1
50,000 - 99,999	95,189	13,258	108,447	49,012	-12,429	3,263	39,846	36.7
Over \$100,000	255,166	26,324	281,490	125,994	-12,657	9,262	122,598	43.6
ALL CLASSES	536,782	59,319	596,101	273,291	-117,858	17,122	172,555	28.9
WIDELY-HELD COMPANIES								
Less than \$3,000	15,726	70	15,797	5,286	-8,354	242	-2,826	-17.9
\$ 3,000 - \$ 5,999	19,571	1,152	20,723	6,582	-5,966	2,562	3,177	15.3
6,000 - 9,999	39,882	3,867	43,749	13,414	-6,636	8,117	14,895	34.0
10,000 - 14,999	46,750	5,396	52,146	15,725	-4,721	11,127	22,131	42.4
15,000 - 24,999	69,521	9,749	79,270	23,384	-2,972	18,923	39,335	49.6
25,000 - 49,999	119,228	23,013	142,241	40,107	4,172	38,856	83,135	58.4
50,000 - 99,999	120,622	29,316	149,935	40,830	12,927	45,528	99,285	66.2
Over \$100,000	227,357	61,164	288,521	79,652	29,424	91,993	201,069	69.7
ALL CLASSES	658,657	133,727	792,381	224,980	17,873	217,347	460,201	58.1
TOTAL	1,195,439	193,046	1,388,482	498,271	-99,985	234,469	632,756	45.9

Source: Computer analysis of tax return sample.  
Note: Figures may not add due to rounding.



Table 6-20

SUMMARY OF CHANGES IN THE TAXATION OF INCOME ACCRUED  
ON RESIDENT INDIVIDUAL SHAREHOLDINGS, 1969  
(thousands of dollars)

<u>Income</u>	<u>Elimination of Shareholder Depletion</u>	<u>Changes in Corporation Income Taxes Allocable to Shareholders</u>	<u>Effects of Integration Proposal</u>	<u>Effects of Capital Gains Tax Proposal</u>	<u>Total</u>
Less than \$1,000	1	1,935	-3,248	38	-1,275
1,000- 1,999	1	2,232	-3,858	68	-1,556
2,000- 2,999	4	2,031	-3,374	147	-1,192
3,000- 3,999	17	3,116	-4,298	585	- 580
4,000- 4,999	27	3,993	-5,189	919	- 249
5,000- 5,999	37	4,177	-4,600	1,185	799
6,000- 7,999	128	12,512	-12,358	3,963	4,245
8,000- 9,999	152	13,313	-11,637	4,588	6,415
10,000- 11,999	160	12,912	-10,000	4,756	7,827
12,000- 14,999	237	18,046	-12,676	6,987	12,594
15,000- 19,999	332	23,336	-13,939	9,658	19,387
20,000- 24,999	359	23,252	-11,134	10,335	22,811
25,000- 34,999	607	35,840	-12,446	17,315	41,317
35,000- 49,999	843	46,087	-8,504	23,881	62,307
50,000- 74,999	1,099	55,914	-1,549	30,438	85,901
75,000- 99,999	686	33,932	1,936	18,357	54,911
100,000-149,999	885	44,417	3,264	22,806	71,372
150,000-199,999	641	33,377	2,534	16,168	52,720
200,000-299,999	825	42,801	3,210	20,696	67,532
300,000 and Over	1,756	85,052	6,433	41,584	134,825
ALL CLASSES	8,797	498,275	-101,433	234,474	640,111

Notes: Figures may not add to totals because of rounding.

Table 6-21

THE EFFECT OF ALTERNATIVE ASSUMPTIONS ON THE  
REVENUE IMPACT OF THE WHITE PAPER PERSONAL  
INCOME TAX PROPOSALS AFFECTING INCOME FROM SHAREHOLDINGS  
(millions of dollars)

	<u>Ontario assumptions (based on 1967 data)</u>		<u>White Paper payout assumptions</u>		<u>Assumptions based on 1964 distribution of incomes</u>	
Effect of integration:						
Full integration	-308		-265		-370	
Reduction of tax credits on shares of widely- held companies	<u>214</u>	-94	<u>120</u>	-145	<u>300</u>	-70
Eliminating shareholder depletion		8		8		9
Taxing capital gains:						
Taxation of goodwill gains at full rates with deemed realization at death	481		585		475	
Reduction of tax rates on capital gains on widely- held shares	-196		-245		-98	
Effect of no deemed realization at least on private company shares	-72		-72		-173	
Effect of 5-year revaluation for widely-held companies	<u>20</u>	<u>233</u>	<u>24</u>	<u>292</u>	<u>9</u>	<u>213</u>
TOTAL CHANGE IN PERSONAL INCOME TAX YIELD		<u>147</u>		<u>155</u>		<u>152</u>

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Notes: All estimates are based upon analyses of a random 2 per cent subsample of the 1967 Ontario tax return sample, and are blown up by a factor of 50 to obtain estimates of population values.

Our estimates of the revenue impact of the white paper tax reforms affecting the tax treatment of shareholder income under the personal income tax is substantially different from the estimates made in the white paper itself. The white paper estimates of the personal income tax changes resulting from their proposals are approximately as follows: \$230 million for the effect of integration, \$300 million for the effort of taxing capital gains on common stocks, and \$15 million for the cancellation of depletion allowances for shareholders.<sup>12/</sup> The white paper proposals thus forecast net revenue increase from changes in the tax treatment of corporate source income of \$85 million.

In order to evaluate the extent to which this difference in estimates may be based on different assumptions, we have performed some tests of sensitivity of the results to different assumptions. These tests are summarized in Table 6-21. The first test was designed to test the extent to which the difference between our estimate and the federal government's estimate might be accounted for by the different payout assumptions made by the white paper.<sup>13/</sup> As Table 6-21 indicates, using the white paper's payout assumption would have actually increased tax revenues relative to our estimate, primarily because of the large number of shareholders for whom effective tax rates are reduced through the substitution of stock dividends for increased capital gains. (It is to reflect the likely adaptation of corporate behaviour to the tax advantages to many shareholders of stock dividends

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<sup>12/</sup> Cf. Proposals for Tax Reform, op. cit., Table 15. The estimate for the effects of taxing capital gains on common stocks has been obtained by deducting our estimate for capital gains on other assets from the white paper estimate for total capital gains (including the effects of the five-year constructive realization).

<sup>13/</sup> The white paper assume that no stock dividends would be issued by widely-held corporations, but that closely-held corporations would distribute virtually all of their income. Cf. Proposals for Tax Reform, op. cit., para. 8.10.

that we forecast that 75 per cent of taxed income of widely-held companies would be allocated to shareholders; this fraction reflects the fraction of income allocable to shareholders who would benefit from stock dividends.) Since the white paper estimates of the effects of taxing capital gains on corporate common stock are reasonably consistent with our estimates of their effects using the white paper assumptions, it would appear that the major error in the white paper estimates is in its projection of the effects of integration.

To assess the extent to which our analysis is sensitive to changes in the distribution of corporate incomes among different types of companies and over different shareholders, we have also analyzed the effect on our estimates of using assumptions based on the 1964 distribution of incomes.<sup>14/</sup> As Table 6-21 indicates, the second alternative set of estimates would change our estimates of the total change in the yield of the personal income tax by \$5 million, a relatively small estimate considering both the changes in the corporate sector between 1964 and 1967 and the improvements in the availability of data since preparation of the Royal Commission estimated.

It would seem that the estimates presented in this chapter are relatively insensitive to reasonable changes in the underlying assumptions regarding the composition of corporate source income. Actually, this should not be surprising, for the assumptions concerned with the distribution of components of corporate source income over different industries and over different income classes are concerned with relatively second order effects compared to the implications of the easily measured relationship among components of aggregate corporate source income accrued for all companies together.

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<sup>14/</sup> The assumptions used for 1964 are derived from research undertaken for the Carter Royal Commission on Taxation; cf. Report of the Royal Commission on Taxation (Ottawa: Queen's Printer, 1966) Vol. 6, Appendix A; John Bossons, A General Income Tax Analyzer, Studies of the Royal Commission on Taxation, No. 25 (Ottawa: Queen's Printer, 1967), Chapter 3, Appendix C.



## CHAPTER 7

### CHANGES IN TAXES ON OTHER BUSINESS AND INVESTMENT INCOME

This group of proposals includes the treatment of capital gains on rental property, real estate, fixed income securities and the capital gains of unincorporated businesses. It also includes the changed treatment of rental income and miscellaneous changes affecting net farm income. These changes will increase tax revenue by \$67.6 million and the tax base by \$221 million. Additional tax revenue of \$18 million would be generated by the accelerated recapture of capital cost allowance from a changed treatment of rental buildings. Another \$5 million would be yielded by additional taxes on interest paid by co-operatives. The total increase in revenue resulting from all of the effects of the white paper proposals affecting other business and investment income would amount to \$90.6 million.

#### 7.1 Taxes on Capital Gains Other Than on Corporate Stock

Our analysis is of capital gains on rental property, real estate and fixed income securities as well as the capital gains of unincorporated businesses. The taxation of capital gains on rental property where provision is made also for the possibility of capital losses, will increase the Canadian tax base by \$103.9 million and raise an additional \$32.4 million in tax revenue. The taxation of unincorporated business capital gains (and again allowing for the deduction of capital losses) will increase the tax base by \$24.4 million and raise \$7.2 million in taxes. Collectively, the taxation of capital gains, other than on corporate stock, will result in a base expansion of \$128.3 million and a tax revenue increase of \$39.6 million. It should be pointed out that our estimates do not include the effects of taxing capital gains on the sale proceeds of property held for personal use or enjoyment such as cars, boats, stamp collections, paintings and cottages.

The tax revenue effects of taxing non-corporate capital gains by income class are presented in Table 7-1.

Table 7-1

TAX CHANGES RESULTING FROM  
TAXING NON-CORPORATE CAPITAL GAINS  
(thousands of dollars)

<u>Income Class</u>	<u>Non-Business Capital Gains</u>	<u>Unincorporated Business Capital Gains</u>	<u>Total</u>
Less than \$1,000	43	-2	41
\$ 1,000 - \$ 1,999	28	6	34
2,000 - 2,999	174	88	262
3,000 - 3,999	529	142	671
4,000 - 4,999	788	262	1,050
5,000 - 5,999	1,013	359	1,372
6,000 - 7,999	2,344	776	3,120
8,000 - 9,999	2,580	753	3,333
10,000 - 11,999	2,045	664	2,709
12,000 - 14,999	2,620	760	3,380
15,000 - 19,999	3,085	1,035	4,120
20,000 - 24,999	2,254	731	2,985
25,000 - 34,999	3,008	803	3,811
35,000 - 49,999	2,897	391	3,288
50,000 - 74,999	2,752	259	3,011
75,000 - 99,999	1,629	80	1,709
100,000 - 149,999	1,678	69	1,747
150,000 - 199,999	995	24	1,019
200,000 - 299,999	864	16	880
300,000 & Over	<u>1,064</u>	<u>17</u>	<u>1,081</u>
ALL CLASSES	32,390	7,233	39,623
	<u><u>          </u></u>	<u><u>          </u></u>	<u><u>          </u></u>

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Source: Computer tabulation of Tax Return Analysis.

## 7.2 Changed Treatment of Rental Income

Several measures have been proposed by the white paper that would alter the tax treatment of net rental income. Among the more important is a restriction on the deductability of losses from rental property and a change in the regulations governing capital cost allowances.

Under the federal government's proposals, taxpayers would not be allowed to deduct losses from holding property from other income. A person who inherits property would for purposes of taxation also acquire the tax cost of the property to the deceased. If a loss is created by capital cost allowance, a taxpayer would be prohibited from deducting other income. By proposing that a separate depreciation class be credited for each rental building that costs \$50,000 or more, the recapture of capital cost allowances would be accelerated. We have estimated that this proposal would yield on the order of \$18 million in increased revenue.

With the assumption that 90 per cent of losses on rental property are attributable to capital cost allowances and other specified expenses, we estimate that the disallowance of deductible losses attributable to these expenses will increase the Canadian tax base by \$70.4 million and raise an additional \$21.9 million in tax revenue. An analysis of the tax changes by income class resulting from this proposal is presented in Table 7-2.

## 7.3 Miscellaneous Changes

The federal white paper has proposed that farmers continue to use the cash method of computing profits. Livestock would become subject to capital gains taxation and hobby farmers would be given the opportunity to capitalize interest and realty taxes on their farm properties. Farm property would not be exempt from the white paper provisions on goodwill taxation.

Table 7-2

EFFECT OF DISALLOWING LOSSES ON RENTAL PROPERTY  
(thousands of dollars)

<u>Income Class</u>	<u>Increase in Tax Revenue</u>	<u>Additions to Tax Base</u>
Less than \$1,000	207	5,357
\$ 1,000 - \$ 1,999	231	1,739
2,000 - 2,999	414	2,488
3,000 - 3,999	820	4,139
4,000 - 4,999	882	3,812
5,000 - 5,999	1,558	5,951
6,000 - 7,999	2,818	9,970
8,000 - 9,999	1,865	5,689
10,000 - 11,999	1,311	3,946
12,000 - 14,999	1,461	4,251
15,000 - 19,999	1,524	4,100
20,000 - 24,999	1,053	2,610
25,000 - 34,999	1,529	3,567
35,000 - 49,999	1,366	2,993
50,000 - 74,999	1,458	3,012
75,000 - 99,999	828	1,679
100,000 - 149,999	736	1,465
150,000 - 199,999	971	1,901
200,000 - 299,999	320	635
300,000 and Over	<u>557</u>	<u>1,087</u>
ALL CLASSES	21,910	70,392
	<u><u>          </u></u>	<u><u>          </u></u>

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Source: Computer tabulation of Tax Return Analysis.



We estimate the proposed changes in the treatment of farm income will increase the tax base of Canadian farmers by \$22.1 million and increase tax revenue by \$6.0 million. Changes by income class in the tax base and tax revenue is shown in Table 7-3.

An additional \$5 million would be raised by additional taxes in interest paid by co-operatives. In the absence of more detailed data, we have used the federal government estimates of the effect of this change.

Table 7-3

EFFECTS OF THE PROPOSED CHANGES IN FARM INCOME  
(thousands of dollars)

<u>Income Class</u>	<u>Change in Tax Revenue</u>	<u>Additions to Tax Base</u>
Less than \$1,000	42	-2,396
\$ 1,000 - \$ 1,999	16	698
2,000 - 2,999	54	2,101
3,000 - 3,999	146	3,202
4,000 - 4,999	287	2,517
5,000 - 5,999	312	1,777
6,000 - 7,999	649	2,573
8,000 - 9,999	613	2,076
10,000 - 11,999	418	1,285
12,000 - 14,999	522	1,488
15,000 - 19,999	-788	2,039
20,000 - 24,999	602	1,429
25,000 - 34,999	720	1,584
35,000 - 49,999	577	1,126
50,000 - 74,999	220	424
75,000 - 99,999	50	90
100,000 - 149,999	24	47
150,000 - 199,999	-5	-10
200,000 - 299,999	-6	-13
300,000 and Over	<u>10</u>	<u>16</u>
ALL CLASSES	<u>6,039</u>	<u>22,054</u>

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Source: Computer tabulation of Tax Return Analysis.

## CHAPTER 8

### THE OVERALL REVENUE AND INCIDENCE OF THE PROPOSALS

The preceding chapters have described in some detail the effects of the federal government white paper tax reform proposals upon different types of income. In this chapter, we bring together all of these different estimates in order to discuss the overall impact of the tax reform proposals upon individuals and different circumstances.

The analysis presented in this chapter falls into three categories. In the first section, we summarize the changes in the personal income tax revenue yields which would be brought about by the white paper proposals. In the following section, we provide estimate of the likely impact incidence of the tax reform proposals on individuals in different income classes. Finally, in section 8.3, we describe the changes faced by different resident individuals in all direct taxes allocable to Canadian individuals.

#### 8.1 Total Change in the Revenue Yield of the Personal Income Tax

The purpose of this section is to pull together the estimates of individual tax reforms proposed for the personal income tax which are scattered through the previous four chapters. Our estimates of the total revenue yield of the changes in the personal income tax proposed by the federal white paper are listed in Table 8-1. The revenue yield of the personal income tax reforms analyzed in the previous four chapters is \$393 million, measured in 1969 terms.

The revenue estimates presented in previous chapters and summarized in Table 8-1 are based on the combined federal and provincial tax rate schedule proposed in the white paper.

Table 8-1

SUMMARY OF CHANGES IN PERSONAL INCOME TAX  
(millions of dollars)

<u>Reform Category</u>	<u>Output of Computer Analysis</u>	<u>Estimated From Other Sources</u>	<u>Total</u>
<u>Changes in Tax Rates and Concessionary Allowances</u>			
Changed tax rates and exemptions	159.0		
Changed treatment of dependents' income	20.5	- 5	
Changed definition of deductible medical expenses	55.6	-15	
Taxation of fellowship and scholarship income	8.6		
Averaging		-30	
Total	<u>243.7</u>	<u>-50</u>	193.7
<u>Changes in Taxes on Employment Income</u>			
Standard employee expense allowance	-235.0		
Moving allowances		-12	
Working mother allowance	- 13.6		
Taxation of employee benefits (includes employer contri- butions to medicare plans)	168.4		
Net effect of changes con- cerning unemployment insurance	34.0		
Adult occupational training allowances		15	
Armed forces changes		<u>10</u>	
Total	<u>- 46.2</u>	<u>13</u>	-33.2
<u>Changes in Taxes on Corporate Source Income</u>			
Integration of corporation and personal income taxes	101.5		
Capital gains taxation	234.4		
Disallowance of shareholder depletion deductions	<u>8.8</u>		
Total	<u>141.7</u>		141.7



Since this proposed rate schedule ignores the existing provincial surtaxes imposed by the provinces of Manitoba and Saskatchewan, it somewhat understates the change in total provincial and federal taxes which would result from the white paper proposals. The size of the added provincial revenue resulting from imposition of the Manitoba and Saskatchewan surtaxes on the tax increases resulting in those provinces from the white paper proposals is estimated in Table 8-2. The total revenue yield of the white paper proposals is thus \$402 million, measured in terms of 1969 incomes and population.

Table 8-2

EFFECT OF PROVINCIAL SURTAX ON ADDED PERSONAL INCOME  
TAX REVENUE RAISED BY WHITE PAPER PROPOSALS, 1969  
(thousands of dollars)

<u>Income Class</u>	<u>Average Rate of Provincial Surtax</u>	<u>Tax Increase Exclusive of Effect of Provincial Surtax</u>	<u>Additional Tax Yielded by Reform Proposals</u>
Less than \$5,000	0.87 %	-33,314	-227
5,000 to 9,999	1.079%	-12,637	-106
10,000 to 24,999	.604%	1,811,400	8,548
Over 25,000	.431%	271,572	<u>915</u>
ALL CLASSES			<u><u>9,130</u></u>

Notes: The average rate of provincial surtax in each income class was calculated as a weighted average of provincial surtax rates, weighted by taxable income in each province for individuals in that income class. The tax increase exclusive of the effect of provincial surtax was obtained from computer tabulations of the results of the analysis of the tax return sample. The additional tax yielded was obtained as the product of column 2 and of the average surtax rate divided by 128, the latter division reflecting the adjustment of provincial tax rates proposed in the white paper.

## 8.2 The Incidence of Personal Income Tax Changes Resulting from the White Paper Proposals

The average change in personal income taxes for resident individuals in different income classes is shown in Table 8-3. The average change in personal income taxes is shown in the third column of the table; percentage change in personal income tax is in the fourth column. As these figures indicate, most individuals would experience a substantial increase in taxes. Personal income taxes would be increased on the average for individuals with incomes of \$8,000 or over; they would be reduced on the average for taxpayers with incomes of less than \$8,000. For taxpayers in the very bottom income classes, taxes would be reduced substantially because of the increase in exemptions.

The increase in personal income taxes for individuals with higher incomes is fairly substantial. For individuals with incomes between \$12,000 and \$25,000, personal income taxes would be increased by an average of 10 per cent. For taxpayers with incomes above \$25,000, personal income taxes would be increased on the average by 32 per cent. The percentage change in after-tax income resulting from these tax changes is shown in the last column of Table 8-3. For these purposes, the effect of the changes in personal income tax are related to average accrued income after direct taxes allocable to shareholders other than personal income tax. Average income accrued after deducting such taxes is shown in the first column of Table 8-3.

As this last column of figures indicates, the progression in the percentage changes in personal income taxes is not matched by a corresponding progression in the percent change and after-tax income. This is because of the extent to which individuals in the highest income tax brackets are able to avoid personal income taxes under the current tax system.

Table 8-3

AVERAGE CHANGES IN PERSONAL INCOME TAXES FOR  
RESIDENT INDIVIDUALS, 1969

<u>Income Class</u>	Average Income Accrued Before Personal Income Taxes (Proposed) (dollars)	Average Current Personal Income Taxes (dollars)	Average Change In Personal Income Taxes (dollars)	Per cent Change In Personal Income Taxes	Per cent Change In After- Tax Income
Less than \$1,000	390	2	-5	-236.9	1.3
1,000 - 1,999	1,490	42	-7	-17.2	0.5
2,000 - 2,999	2,470	154	-2	-1.2	0.1
3,000 - 3,999	3,480	332	-12	-3.6	0.4
4,000 - 4,999	4,510	506	-9	-1.8	0.2
5,000 - 5,999	5,450	642	-20	-3.2	0.4
6,000 - 7,999	6,860	904	-13	-1.5	0.2
8,000 - 9,999	8,780	1,260	25	2.0	-0.3
10,000 - 11,999	10,690	1,523	76	5.0	-0.8
12,000 - 14,999	12,930	1,905	156	8.2	-1.4
15,000 - 19,999	16,470	2,571	279	10.8	-1.9
20,000 - 24,999	21,160	3,523	386	11.0	-2.1
25,000 - 34,999	27,080	4,555	559	12.3	-2.3
35,000 - 49,999	37,260	6,422	1,002	15.6	-2.9
50,000 - 74,999	52,260	9,122	1,864	20.4	-3.6
75,000 - 99,999	73,240	13,418	2,686	20.0	-3.7
100,000 - 149,999	98,800	17,194	3,738	21.7	-3.6
150,000 - 199,999	135,930	20,821	5,719	27.5	-3.8
200,000 - 299,999	182,350	23,482	8,874	37.8	-4.1
300,000 or over	403,730	46,003	18,936	41.2	-3.7
ALL CLASSES	6,380	836	47	6.0	0.1

Notes: Income classes are defined in terms of total assessable income.  
Average income accrued before personal income taxes is calculated  
as accrued income minus the difference between proposed total



direct taxes and proposed personal income taxes with the result divided by the number of tax units in the income class. Average current personal income taxes are taken as current personal income taxes divided by the number of tax units where the average change in personal income taxes is defined as proposed taxes minus current taxes divided by the number of tax units. The per cent change in personal income taxes is the difference between proposed and current divided by current personal income taxes. Proposed taxes minus current taxes are divided by the difference in average income accrued before personal taxes and average current personal income taxes to derive the percentage change in after-tax income.

The relative importance of the different changes in taxes described in previous chapters for resident individuals in different income classes is presented in Table 8-4. As this table shows, the effect of the changes in tax rates in concessional allowances discussed in Chapter 4 is essential to raise taxes on middle income taxpayers. For individuals with incomes above \$75,000, the effect of the changes in tax rates in concessional allowances is to reduce taxes by significant amounts. The impact of all of the white paper tax reforms is to substantially increase taxes for upper income individuals. However, as Table 8-4 indicates, this is so only because of the effect on higher income individuals of the taxation of capital gains. Indeed, under the white paper proposals, it is almost entirely the capital gains taxes applied to income from shareholdings in Canadian corporations that make the white paper changes in the personal income tax progressive.

Table 8-4

IMPORTANT SOURCES OF CHANGES IN AVERAGE  
PERSONAL INCOME TAXES PAID BY RESIDENT INDIVIDUALS, 1969

<u>Income Class</u>	<u>Changes in Tax Rates and Concessionary Allowances</u>	<u>Changes in Taxes on Employment Income</u>	<u>Changes in Taxes on Corporate Source Income</u>	<u>Changes in Taxes on Other Business Income</u>	<u>Total Changes</u>
Less than \$1,000	-1	0	-4	0	-5
1,000- 1,999	-22	19	-4	0	-7
2,000- 2,999	-11	12	-4	1	-2
3,000- 3,999	1	-13	-2	2	-12
4,000- 4,999	13	-21	-3	2	-9
5,000- 5,999	10	-32	-2	4	-20
6,000- 7,999	18	-33	-3	5	-13
8,000- 9,999	55	-24	-13	7	25
10,000- 11,999	91	-19	-8	12	76
12,000- 14,999	131	-13	22	16	156
15,000- 19,999	232	31	-12	28	279
20,000- 24,999	232	103	2	49	386
25,000- 34,999	219	170	85	85	559
35,000- 49,999	234	279	372	117	1002
50,000- 74,999	232	350	1110	172	1864
75,000- 99,999	-3	391	2048	251	2687
100,000-149,999	-417	413	3424	318	3738
150,000-199,999	-1003	373	5759	590	5719
200,000-299,999	-1525	348	9588	463	8874
300,000 and Over	-7608	356	25349	839	18936

Notes: Income is defined as total assessable income. Changes in tax rates and concessionary allowances refer to the proposed rate schedule, exemption changes, the non-deductibility of medical expenses recovered by prepaid plans and the changes in the treatment of scholarship and fellowship income. Changes in taxes on employment income refer to the standard employee expense allowance, the working mother deduction, taxation of personal benefits including employer contributions to employee medicare plans, incorporation of net income from unemployment insurance. By changes in taxes on corporate stock income is meant integration of corporation and personal income taxes, widening of the tax base including the inclusion of unreported dividends, capital gains taxes on corporate stock, the reduction of the integration tax credit and capital gains tax rate for widely-held corporate stock, and the effects of no deemed realization at death for capital gains on private companies. The final category, changes in taxes on other business income, refers to the disallowance of losses on rental property, taxation of unincorporated business and remove other non-business capital gains and the miscellaneous changes affecting the treatment of farm income.

### 8.3 Changes in Direct Taxes Allocable to Canadian Individuals

The average change in all direct taxes allocable to resident individuals, including taxes paid by corporations and taxes on gifts and estates, is shown in Table 8-5. The percentage change in all direct taxes is not very substantially different from that shown in Table 8-3 for personal income taxes. However, the rate of increase in all direct taxes is larger for individuals in middle income brackets than is true for the change in personal income taxes alone. For individuals with incomes of between \$12,000 and \$25,000, the average percentage change in all direct taxes is an increase of 13 per cent.

The change in after-tax income of individuals in different income classes as a result of the white paper proposals for all direct taxes is shown in the last column of Table 8-5. The change in after-tax income is substantially larger than is the effect of changes in the personal income tax alone, in spite of the fact that the income being used as the denominator of such comparisons is average income accrued before all direct taxes rather than income accrued after direct taxes other than the personal income tax, as was the case in Table 8-3. For upper income individuals, after-tax income is reduced by in excess of 10 per cent. A reduction in after-tax income, though a smaller magnitude, is on the average also experienced by other individuals with incomes above \$8,000.

The distribution of individuals in each income class experiencing different percentage changes in all direct taxes as the result of the white paper proposals is shown in Table 8-6.



Table 8-5

AVERAGE CHANGE IN ALL DIRECT TAXES  
ALLOCABLE TO RESIDENT INDIVIDUALS

Income Class	Average Income Accrued Before All Direct Taxes	Average Current Direct Taxes	Change in Direct Taxes	Percentage Change in Direct Taxes	Percentage Change in After Tax Income
			(dollars)		
Less than \$1,000	400	12	-2	-19.0	0.6
\$ 1,000 - \$ 1,999	1,500	51	-5	-9.7	0.3
2,000 - 2,999	2,480	165	1	0.3	--
3,000 - 3,999	3,490	345	-9	-2.6	0.3
4,000 - 4,999	4,530	525	-5	-0.9	0.1
5,000 - 5,999	5,480	668	-15	-2.2	0.3
6,000 - 7,999	6,900	940	-4	-0.5	0.1
8,000 - 9,999	8,860	1,326	41	3.0	-0.5
10,000 - 11,999	10,880	1,686	112	6.6	-1.2
12,000 - 14,999	13,270	2,188	209	9.5	-1.9
15,000 - 19,999	17,030	3,035	381	12.5	-2.7
20,000 - 24,999	22,280	4,404	630	14.3	-3.5
25,000 - 34,999	29,240	6,202	1,064	17.2	-4.6
35,000 - 49,999	41,480	9,609	2,036	21.2	-6.4
50,000 - 74,999	60,250	15,065	3,917	26.0	-8.7
75,000 - 99,999	86,000	22,883	5,982	26.1	-9.5
100,000 - 149,999	119,940	32,709	9,367	28.6	-10.7
150,000 - 199,999	172,310	47,275	15,640	33.1	-12.5
200,000 - 299,999	241,790	66,340	25,625	38.6	-14.6
300,000 and Over	556,260	155,226	62,242	40.1	-15.5
ALL CLASSES	6,560	1,020	235	9.8	4.0

Table 8-6

PERCENTAGE OF TAX UNITS IN EACH INCOME CLASS  
EXPERIENCING INDICATED PERCENTAGE CHANGE IN  
TAXES BETWEEN CURRENT AND PROPOSED  
SYSTEMS

Income Class	% With Near Stable Taxes*	% with Reduction in Taxes				% with Increases in Taxes				Total % **
		More Than 50% Down	25-50 Down	15-25 Down	5-15 Down	5-15 Up	15-25 Up	25-50 Up	More Than 50% Up	
Less than \$1,000	68.3	1.7	3.8	25.2	0.8	0.1	--	--	0.1	100
\$ 1,000 - \$ 1,999	30.7	15.3	15.4	15.2	5.4	1.6	3.5	6.0	6.2	100
2,000 - 2,999	23.6	9.5	6.3	6.6	25.4	12.3	3.6	2.9	9.7	100
3,000 - 3,999	54.6	11.0	6.9	4.6	3.0	18.1	1.2	0.5	--	100
4,000 - 4,999	47.7	6.8	9.1	8.8	4.2	21.2	1.1	0.6	0.4	100
5,000 - 5,999	53.9	3.1	8.7	13.8	10.4	7.9	1.3	0.7	0.3	100
6,000 - 7,999	49.9	0.8	2.1	5.0	29.3	10.9	1.4	0.4	0.2	100
8,000 - 9,999	39.5	0.2	0.4	0.6	17.4	38.5	2.6	0.6	0.1	100
10,000 - 11,999	46.2	0.1	0.2	0.4	2.4	42.6	6.7	1.3	0.2	100
12,000 - 14,999	22.9	0.0	0.1	0.2	0.5	63.7	10.0	2.3	0.3	100
15,000 - 19,999	2.1	0.1	0.1	--	0.2	74.7	15.3	7.1	0.5	100
20,000 - 24,999	1.0	--	--	--	0.1	65.3	16.5	16.5	0.6	100
25,000 - 34,999	2.1	--	--	--	--	55.1	16.0	25.9	0.8	100
35,000 - 49,999	5.9	--	--	--	0.1	45.0	12.0	30.6	6.4	100
50,000 - 74,999	11.7	--	0.1	--	--	29.9	10.6	23.1	24.5	100
75,000 - 99,999	23.0	--	--	--	--	15.5	8.8	27.3	25.2	100
100,000 - 149,999	17.1	--	--	--	3.7	10.7	8.8	33.4	26.3	100
150,000 - 199,999	7.4	--	--	0.1	7.4	7.0	7.5	34.9	35.7	100
200,000 - 299,999	3.5	0.1	0.1	0.5	4.0	5.3	6.2	40.2	40.0	100
300,000 and Over	2.7	--	--	1.1	2.3	3.8	4.1	56.5	29.5	100
ALL CLASSES	42.7	5.1	5.5	7.9	11.4	19.9	3.1	2.3	2.0	100

\* -5% to +5%

\*\* All rows sum to approximately 100% due to rounding.

## Appendix A

### RELATIONSHIP OF SAMPLE TO CANADIAN TAX RETURN POPULATION

#### 1. Introduction

The Ontario data sample for 1967, detailed in Chapter 2-2, was used as a basis to derive revenue estimates of the white paper reforms for Canada as well as Ontario. Special adjustment factors were applied to each tax return in the Ontario sample to provide a representative sample of Canadian taxpayers. Calculation of the changes in the revenue yield and incidence effects for Canada under the white paper proposals were made using the derived sample. A description of the derivation of the adjustment factors relating the Ontario sample to the 1967 Canadian tax return population is given below.

#### 2. Derivation of the Ontario to Canada Adjustment Factors

To calculate the adjustment factors, two tables, classifying tax returns by age, income, sex and taxpaying status, were produced for both Ontario and Canada. Table A-1 below details the classification for Canada and Table A-2 the similar classification for Ontario.

##### (a) Derivation of Canadian Data

Table A-1, the Distribution of Income Tax Returns for Canada for 1967, was produced directly from data in Department of National Revenue, Taxation Statistics 1969: Individual Income Tax Returns for 1967 (Ottawa: Queen's Printer, 1969), Table 11. Table A-1 shows the distribution of 1967 Canadian tax returns classified by currently assessed income by four age classes, and by thirteen income classes for tax paying returns and by three income classes for non tax paying returns.

Although a further breakout of Table A-1 into male and female sex classes was available from published taxation statistics, this was not used since the tax returns contained



Table A-1

## DISTRIBUTION OF INCOME TAX RETURNS FOR CANADA, 1967

TAXPAYING CLASS					
Income Class	Less Than 25	Age 26-39	40-64	65+	Total
Less than \$2,000	355,094.7	138,476.3	198,215.0	51,244.0	743,030.0
\$ 2,000 to \$ 2,999	355,761.6	167,937.4	281,151.0	113,999.0	918,849.0
3,000 to 3,999	364,490.3	229,511.7	342,476.0	88,506.0	1,024,984.0
4,000 to 4,999	258,320.8	281,175.2	373,587.0	63,247.0	976,330.0
5,000 to 5,999	150,763.8	311,424.2	368,729.0	39,509.0	870,426.0
6,000 to 6,999	74,439.5	273,129.5	316,318.0	25,133.0	689,020.0
7,000 to 7,999	23,656.9	199,154.1	219,154.0	15,839.0	457,804.0
8,000 to 8,999	9,855.7	124,734.3	145,277.0	10,507.0	290,374.0
9,000 to 9,999	4,935.2	71,790.8	96,943.0	6,747.0	180,416.0
10,000 to 14,999	4,274.5	118,480.5	193,548.0	17,317.0	333,620.0
15,000 to 19,999	675.9	20,121.1	54,902.0	5,996.0	81,695.0
20,000 to 24,999	*****	6,850.0	21,737.0	3,206.0	31,793.0
25,000 and Over	*****	8,510.0	33,440.0	5,861.0	47,811.0
TOTAL	1,602,268.8	1,951,295.1	2,645,477.0	447,111.0	6,646,152.0

NON-TAXPAYING CLASS					
Income Class	Less Than 25	Age 26-39	40-64	65+	Total
Less than \$2,000	530,673.5	235,729.5	339,112.0	128,537.0	1,234,052.0
\$ 2,000 to \$ 2,999	11,601.7	47,111.3	71,446.0	28,503.0	158,662.0
\$ 3,000 and Over	1,134.8	18,495.2	31,889.0	3,259.0	54,778.0
TOTAL	543,410.0	301,336.0	442,447.0	160,299.0	1,447,492.0

Notes: Data is from Department of National Revenue, Taxation Statistics 1969 edition, Table 11.

Starred values indicate that number of taxpayers was less than 400 for that class and that the value has been aggregated into the class below.

Nontaxpaying returns for incomes above \$3,000 were aggregated together due to the small number of returns in these categories.



in our sample were not all classified by sex. In addition, wherever entries occur that are small enough to distort the overall pattern i.e. less than 500, the entry is aggregated into the preceding income class.

(b) Derivation of Ontario Data

Table A-2, showing the distribution of income tax returns for Ontario in the sample for 1967, was produced by a subsidiary computer program which extracted the necessary data from the input tapes to the GITAN program.

(c) Calculation of the Adjustment Factors

The adjustment factors are calculated by the simple division of the Canadian data for each cell in Table A-1 by the appropriate Ontario data entry in Table A-2. Adjustment factors for all cells are given in Table A-3, which shows the ratio of Canada to Ontario income tax returns for different groups in the sample. As an example, the adjustment factor for individuals in the Ontario sample who pay tax and are in income class 1 and are also aged between 40 and 64 is 2.373, as shown in Table A-3, where  $2.373 = 198215.0/83525.0$  and is derived from Tables A-1 and A-2.

Where comparable data of sufficient detail exists, as is the case for most of the classes analyzed, the method we have used provides a simple and accurate means of relating one sample to another. For the Ontario to Canada adjustment, however, the available data was not immediately comparable for age groups 0-25 and 25-39. This necessitated redistributing individuals aged 25 through the two age groups for both Canada and Ontario to ensure comparability before deriving the final adjustment factors. The method of redistribution is described below.

(d) Redistribution of Individuals Aged 25 to Ensure Data Comparability

The redistribution was necessary since the age classifications for taxpayers aged below forty differed between the Ontario and Canadian data. The Ontario data had been classified by age

Table A-2DISTRIBUTION OF INCOME TAX RETURNS FOR ONTARIO  
IN SAMPLE, 1967TAXPAYING CLASS

<u>Income Class</u>	<u>Less Than 25</u>	<u>26-39</u>	<u>Age 40-64</u>	<u>65+</u>	<u>Total</u>
Less than \$2,000	123,374.0	58,491.0	83,525.0	23,604.0	288,994.0
\$ 2,000 to \$ 2,999	114,106.0	68,505.0	109,629.0	51,003.0	343,243.0
3,000 to 3,999	125,112.0	86,430.0	138,791.0	39,447.0	389,780.0
4,000 to 4,999	105,094.0	103,604.0	147,707.0	28,404.0	384,809.0
5,000 to 5,999	65,106.0	125,468.0	153,039.0	17,770.0	361,383.0
6,000 to 6,999	37,624.0	115,164.0	142,911.0	11,047.0	306,746.0
7,000 to 7,999	12,222.0	85,116.0	98,043.0	7,104.0	202,485.0
8,000 to 8,999	5,386.0	53,320.0	64,587.0	5,024.0	128,317.0
9,000 to 9,999	2,069.0	30,753.0	41,904.0	3,141.0	77,867.0
10,000 to 14,999	2,020.0	49,667.0	86,565.0	7,822.0	146,074.0
15,000 to 19,999	556.0	8,388.2	25,153.0	2,775.0	36,872.2
20,000 to 24,999	*****	3,126.5	9,838.0	1,513.0	14,477.5
25,000 and Over	*****	4,015.3	15,488.0	2,848.0	22,351.3
<b>TOTAL</b>	592,669.0	792,048.0	1,117,180.0	201,502.0	2,703,399.0

NON-TAXPAYING CLASS

<u>Income Class</u>	<u>Less Than 25</u>	<u>26-39</u>	<u>Age 40-64</u>	<u>65+</u>	<u>Total</u>
Less than \$2,000	186,905.0	89,659.0	117,926.0	52,190.0	446,680.0
\$ 2,000 to \$ 3,000	3,074.0	11,232.0	18,355.0	9,680.0	42,321.0
\$3,000 and Over	760.0	4,255.0	6,390.0	1,305.0	12,710.0
<b>TOTAL</b>	190,739.0	105,146.0	142,651.0	63,175.0	501,711.0

Entries Denoted By Stars Not Used

Note: Ontario data is obtained from the data sample outlined in  
Section 22.

Table A-3

RATIO OF CANADA TO ONTARIO INCOME TAX RETURNS  
IN SAMPLE FOR 1967

<u>TAXPAYING CLASS</u>					
<u>Income Class</u>	Less Than <u>25</u>	<u>26-39</u>	<u>Age</u> <u>40-64</u>	<u>65+</u>	
Less than \$2,000	2.878	2.367	2.373	2.171	
\$ 2,000 to \$ 2,999	3.118	2.451	2.565	2.235	
3,000 to 3,999	2.913	2.655	2.468	2.244	
4,000 to 4,999	2.458	2.714	2.529	2.227	
5,000 to 5,999	2.316	2.482	2.409	2.223	
6,000 to 6,999	1.979	2.372	2.213	2.275	
7,000 to 7,999	1.936	2.340	2.235	2.230	
8,000 to 8,999	1.830	2.339	2.249	2.091	
9,000 to 9,999	2.385	2.334	2.313	2.148	
10,000 to 14,999	2.116	2.385	2.236	2.214	
15,000 to 19,999	1.216	2.399	2.183	2.161	
20,000 to 24,999	*****	2.191	2.209	2.119	
25,000 and Over	*****	2.119	2.159	2.058	

<u>NON-TAXPAYING CLASS</u>					
<u>Income Class</u>	Less Than <u>25</u>	<u>26-39</u>	<u>Age</u> <u>40-64</u>	<u>65+</u>	
Less than \$2,000	2.839	2.629	2.876	2.463	
\$ 2,000 to \$ 2,999	3.774	4.194	3.897	2.945	
\$ 3,000 and Over	1.493	4.346	4.990	2.497	

Notes: The ratios are the result of dividing the Canadian value from Table A-1 by the appropriate Ontario value given in Table A-2 for each cell.

groups 0-24 and 25-39. To derive accurate adjustment factors, it was first necessary to place both data sets on a comparable age classification basis.

The classification was derived by adjusting the Canadian data to the Ontario age groups of 0-25 and 26-39. Three steps were involved in the calculation.

Step 1 derives preliminary estimates of the number of Canadian taxpayers in age groups 0-25 and 26-39 for each income class defined in Table A-3

Derivation of the estimates is shown below:<sup>1/</sup>

$$1) \text{ CAN}_* (0-25) = \left( \frac{\text{ONT}(0-24) + \text{ONT}(25)}{\text{ONT}(0-24)} \right) \times \text{CAN}(0-24)$$

Where  $\text{CAN}_* (0-25)$  = preliminary estimate of Canadian taxpayers aged 0-25.

$\text{ONT}(0-24)$  = Ontario taxpayers in age group (0-24)

$\text{ONT}(25)$  = Ontario taxpayers aged 25

$\text{CAN}(0-24)$  = Canadian taxpayers aged 0-24

$$2) \text{ CAN}_* (26-39) = \left( \frac{\text{ONT}(25-39) - \text{ONT}(25)}{\text{ONT}(25-39)} \right) \times \text{CAN}(25-39)$$

Where  $\text{CAN}_* (26-39)$  = preliminary estimate of Canadian taxpayers aged 26-39.

$\text{ONT}(25-39)$  = Ontario taxpayer aged 25-39

The estimates are further modified as shown below:

$$3) \text{ CAN}_* (0-25) = \frac{\text{SUM } 2}{\text{SUM } 1} \times \text{CAN}_* (0-25)$$

$$4) \text{ CAN}_* (26-39) = \frac{\text{SUM } 2}{\text{SUM } 1} \times \text{CAN}_* (26-39)$$

$$5) \text{ Where SUM } (1) = \text{CAN}_* (0-25) + \text{CAN}_* (26-39)$$

$$6) \text{ and SUM } (2) = \text{CAN} (0-24) + \text{CAN} (25-39)$$

SUM (1) is the estimated number of taxpayers in Canada between 0 and 39.

SUM (2) is the actual number of these taxpayers as reported in Taxation Statistics.

The preliminary estimate is thus modified by the ratio of the estimated number of Canadian taxpayers in age group (0-39) to actual taxpayers in this group. This is to ensure that the aggregate value

<sup>1/</sup> Canadian data derived from Department of National Revenue, 1969 Taxation Statistics, op. cit., Table 11. Ontario data derived from 1967 Ontario data sample.



over the two age classes is not mis-estimated due to differences in the relative proportion of 25 year olds to other age classes between the Ontario and Canada data.

Finally, the adjustment factors to blow up the Ontario data to Canada for age classes 0-25 and 26-39 shown in Table A-3 are derived as shown below:

$$\text{BLOWUP (0-25)} = \frac{\text{CAN * (0-25)}}{\text{ONT (0-25)}}$$

$$\text{BLOWUP (26-39)} = \frac{\text{CAN * (26-39)}}{\text{ONT (26-39)}}$$

Where BLOWUP (0-25) = special adjustment factor to relate Ontario data to Canada for age class 0-25  
 BLOWUP (26-39) = as above for age class (26-39).

### 3. Additional Adjustments

Table A-4 shows the relationship of the Ontario 1967 data sample to the published 1967 taxation statistics for the number of tax returns by income class. The graph shows that the Ontario sample is approximately 4 per cent high for incomes below \$1000, 3 per cent low for incomes between \$1000 and \$2000, within 1 per cent for incomes from \$2000 to \$25,000, 2 per cent low for incomes \$25,000 to \$50,000 and 8 per cent high at incomes of \$50,000 and above. The anomalies in the data were reduced by adjusting the Ontario to Canada adjustment factors by the difference between the Ontario and taxation statistics data for each income class shown.

Table A-4

RELATIONSHIP OF ONTARIO DATA SAMPLE TO  
TAXATION STATISTICS DATA

<u>Income Class</u>	Number of Returns		<u>Percentage Difference</u>
	<u>Taxation Statistics</u>	<u>Ontario Data</u>	
Less than \$1,000	908,338	941,905	3.70
\$ 1,000 - \$ 1,999	1,076,984	1,036,019	-3.80
2,000 - 2,999	1,079,543	1,076,625	-0.27
3,000 - 3,999	1,081,014	1,079,582	-0.13
4,000 - 4,999	991,894	991,820	-0.01
5,000 - 5,999	876,273	875,455	-0.09
6,000 - 7,999	1,150,522	1,151,906	0.12
5,000 - 9,999	472,233	473,791	0.33
10,000 - 14,999	335,004	335,645	0.19
15,000 - 19,999	81,748	81,713	-0.04
20,000 - 24,999	32,027	31,923	-0.32
25,000 - 49,999	39,717	38,907	-2.04
50,000 - 99,999	<u>8,398</u>	<u>9,067</u>	<u>7.97</u>
ALL CLASES	<u>8,133,694</u>	<u>8,124,358</u>	-0.11

Note: Figures in the first column are from Taxation Statistics, 1969 edition op. cit. Figures for the Ontario data sample were derived by an ancillary computer program. The third column shows the percentage difference between the two data samples.

## APPENDIX B

### ASSUMPTIONS UNDERLYING ANALYSIS OF CHANGES IN THE PERSONAL INCOME TAX

The notes set out in this appendix provide brief explanations of how the estimates of the effects of the various federal white paper reforms proposed for the personal income tax have been calculated and outline the method of estimation of the assumption parameters used. The general method of analysis used has been described in Chapter 3. Further reference to the more technical details of the computer programs is to be found in an accompanying monograph.<sup>1/</sup>

#### B.1 Processing of the Tax Return Sample

Before analyzing the Ontario tax return sample, it was necessary to undertake preliminary processing in order to transform the data into a more easily-used form and to estimate certain missing pieces of data which were used in subsequent analysis. The form of the micro-data set obtained as a result of this processing is described in detail elsewhere.<sup>2/</sup>

Each record obtained after this preliminary processing consisted either of a tax return for an individual or the aggregate of all tax returns filed by a group of similar individuals sampled. In all cases, data filed on each tax return was multiplied by the number of individuals in the population whom the tax return sampled was supposed to represent (this number being the inverse of the sampling rate used in selecting the tax return to be analyzed).

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<sup>1/</sup> John Bossons, The GITAN/Level 6 Tax Analyzer Program (Toronto: Ontario Department of Treasury and Economics, 1970) hereinafter referred to as "Tax Analyzer Program".

<sup>2/</sup> Ibid., Appendix E.

The records were analyzed by assuming each record to be data for a representative tax return filer. The representative individual's tax return was obtained by dividing the data on a record by the number of individuals assumed to be represented by the record. The effect of each tax reform was then calculated for this representative individual in order to simulate the tax return which such an individual would have filed under the new tax system. The results of each such individual simulation were then weighted by the number of individuals represented by each tax return group in all aggregate analyses.

The changes in taxes resulting from each reform were calculated assuming each of several sets of specific reforms to be implemented simultaneously, but with each different set added in a specified sequence. As a result, each category of reforms analyzed is assumed to reflect the change in taxes resulting from previous reforms analyzed. At the same time, all of the reforms in each category are treated as equally marginal, in that the effective tax rates applied in calculating the effects of all reforms within the category are identical. The calculation procedure is specified in detail elsewhere.<sup>3/</sup> The categories of reforms analyzed are as follows, listed in the order in which they are analyzed: (1) changes in tax rates and exemptions, (2) changes in medical expenses, (3) taxing scholarships and fellowships, (4) changes in the tax treatment of components of labour income, (5) changes in the taxation of unincorporated businesses and non-corporate investment income, and (6) changes in the taxation of income from corporate shareholdings.

Corporate source income is thus assumed to be the most marginal of all components of resident individuals' income, reflecting the ease with which corporate assets may be sold to non-residents. The order in which reforms are analyzed is roughly consistent with that underlying the federal government's revenue estimates.<sup>4/</sup>

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<sup>3/</sup> See the listing of subroutine RVTAB2 in *ibid.*, Appendix H.

<sup>4/</sup> Cf. Proposals for Tax Reform, (Ottawa: Queen's Printer, 1969), Table 15 and pages 86-89.



## B.2 Changes in tax rates and in concessionary allowances

The reforms included in this section comprise those discussed in chapter 4: namely, the effect of the changes in exemptions and tax rates, the changes in the treatment of dependants' income, the changed treatment of medical expenses, and the taxing of scholarships and fellowships.

### Changed tax rates and exemptions on the current tax base.

For single individuals, resident in Canada for the entire year, the decrease in the tax base was taken as the increase in exemptions allowed for single individuals (\$400). To take account of individuals who were resident in Canada for only part of the year, the tax base of these individuals was decreased by the fraction of the exemption they claimed, multiplied by \$400. The same procedure was followed for married individuals except that the base decrease was set at \$800.

The tax changes resulting from the combined effects of the changes in exemptions and changes in tax rates were calculated in two steps. For all individuals, the combined effects of the change in tax rates and of the \$400 increase in the basic universal exemption was first calculated; this estimate is based on the effect of this change assuming the personal tax base to be otherwise unchanged.<sup>5/</sup> The effect of adding another \$400 increase in exemptions for married individuals was then calculated using the proposed tax rates and basic exemption.

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<sup>5/</sup> The rate schedule used in all of our analysis was the schedule proposed in the white paper, including provincial taxes equal to current statements but excluding the additional personal income surtax levied in Manitoba and Saskatchewan. This schedule has been reproduced below:

Taxable income bracket	Tax rate on income in bracket
0 - 500	21.76%
500 - 1,000	23.04
1,000 - 1,500	24.32
1,500 - 2,000	25.60
2,000 - 3,000	26.88
3,000 - 4,000	28.16
4,000 - 5,000	30.72
5,000 - 7,000	33.28
7,000 - 10,000	35.84
10,000 - 13,000	38.40
13,000 - 16,000	42.24
16,000 - 24,000	46.08
24,000 and over	51.20

Changes in the treatment of dependants' income. In our analysis we were able to quantify only the tax effects of reducing the deduction for spouses for each dollar the spouse makes over \$100 instead of the present \$250. This was accomplished by reducing by \$150 the exemptions claimed by married individuals who reported spouses with incomes between \$250 and \$1,250. The tax base of the tax filer was then increased by this amount.

Changed treatment of medical expenses. The analysis of the tax effect of no longer allowing taxpayers to deduct medical expenses paid by prepaid private medical insurance plans was based principally upon assumptions regarding gross medical expenses paid by the average tax filer and not recovered from private prepaid plans. For individuals currently claiming medical expenses, gross cash outlays other than the premiums of public medical care plans were assumed to be \$125 (in part reflecting premiums of additional private plans) plus 40 per cent of expense claims above this amount. Other individuals were assumed to have no gross medical expenses.

In calculating the tax revenue effects of this reform, allowable medical deductions were set equal to gross deductible cash outlays (as thus defined), minus 3 per cent of net income. (Net income for this purpose is defined to reflect the deduction of pension contributions and registered retirement savings plan premiums along with certain other deductions, but does not reflect exemptions or standard deductions.) The 3 per cent of net income figure is built into both the present and proposed tax legislation.

Taxing scholarships and fellowships. In quantifying the tax effects of this reform, it was necessary to first distinguish between undergraduate and graduate students and then to apply a different assumption to each group as to the average fellowship and scholarship income received. To do this, all tax filers with wage and salary income less than \$5,000 and total income from all sources less than \$30,000 who were 21 or less (the majority of undergraduates fall into this age group) or between the ages of 22 and 25 (the majority of graduate students



fall into this age group) were separated out.<sup>6/</sup> Under the white paper proposal, tuition fees and costs incurred for research would be allowed as taxable deductions. Tuition payments claimed as deductions were calculated as 96 per cent of the items in the "other deductions" category on the taxpayers record. (The 96 per cent figure results from multiplying 1.067 by .9 where 1.067 is the ratio of average tuition payments to educational deductions currently allowed, and .9 is the fraction of miscellaneous deductions assumed to be educational allowances.)

The number of students considered on any tax record was assumed to be equal to deductible tuition payments divided by an average tuition payment of \$400. If this estimate of the number of students included in a tax return group was less than or equal to the estimated total number of individuals in the group filing tax returns, taxable fellowships and scholarships were assumed to be \$1,320 multiplied by this ratio for graduate students and \$200 multiplied by this ratio for undergraduates, these average amounts being based on data presented in Table B-1. The results represented the increase in the tax base. If the estimated number of students was greater than the number of individuals filing tax returns in a group, then both the estimate of deductible tuition payments and the estimated number of students were redefined to

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<sup>6/</sup> On our first run through using the above assumptions as to who were likely to be graduate and undergraduate students we found that we were over-estimating the number of graduate students. As a consequence, in our later runs we decreased the number of students aged 22 to 25 by 71 per cent. This reducing factor gave us an estimate of 24,294 graduate and 99,651 undergraduate students as the numbers who would be affected by the white paper proposal to tax fellowship and scholarship income. Since there were 24,187 graduate and 237,020 undergraduate students in Canada in 1967-68 our estimates of numbers for 1969 are not far off. (cf. Survey of Higher Education Part 11, Degrees, Staff and Summary, Table 3.) The discrepancy in the undergraduate figures reflects the fact that wages received by many undergraduates normally fall well within the personal exemptions after deducting tuition fees.

Table B-1

SCHOLARSHIPS AND FELLOWSHIPS AWARDED TO  
CANADIAN POST-SECONDARY STUDENTS, 1967-68

A) 1967-68 Federal Aid

Category	Value	Awards
Loans	\$54,112,665	91,667
Grants	3,188,411	4,384
Bursaries	252,850	760
Free Tuition	407,271	1,010
Scholarships	14,180,067	3,769
Allowances	<u>8,714,686</u>	<u>8,535</u>
Total	80,855,950	110,125
Total Net of Loans	26,743,285	18,458

These awards are granted by a total of nineteen federal agencies. It is estimates that 80 per cent of the grants, bursaries, free tuition, scholarships and allowances go to graduate students.

B) 1967-68 Provincial Aid

Category	Value	Awards
Loans	\$21,600,009	50,170
Grants	21,454,185	27,315
Bursaries	17,972,460	48,203
Free Tuition	2,168,118	5,362
Scholarships	9,453,188	15,211
Allowances	<u>1,903,837</u>	<u>1,499</u>
Total	74,551,797	147,760
Total Net of Loans	52,951,788	97,590

Source: Information derived from the Education Support Branch, .  
Department of Secretary of State, Ottawa.



be consistent with the number of individual tax returns being analyzed.  
The resultant estimates seem consistent with other relevant data.<sup>7/</sup>

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<sup>7/</sup> In the 1967-68 fiscal year, the federal government provided \$26,743,285 to Canadian post-secondary students in the form of grants, bursaries, free tuition, scholarships and allowances. Of the \$26,743,285, 20 per cent or \$5,348,657 went to undergraduates and 80 per cent or \$21,394,628 went to graduates. Similarly, approximately 20 per cent of the 18,458 awards went to undergraduates and 80 per cent to graduates.

In the same 1967-68 period, the provincial governments awarded \$52,951,788 to Canadian post-secondary students in the form of grants, bursaries, free tuition, scholarships and allowances. It is assumed that total provincial aid was distributed amongst undergraduate and graduate students in the same proportions as Ontario aid, as distribution data from the other provinces was not available. As a result of the \$52,951,788, 80 per cent or \$42,361,430 was assumed to go to undergraduates and 20 per cent or \$10,590,357 to graduates. The 97,590 awards were assumed to be distributed in the same proportions as the provincial awards for Ontario, i.e. 88 per cent undergraduate, 12 per cent graduate.

On the basis of this information, the average Canadian undergraduate award in 1967-68 was  $(\$5,348,657 + \$42,361,430) / (3,691 + 85,879) = \$533$  and the average Canadian graduate award was  $(\$21,394,628 + \$10,590,357) / (14,766 + 11,799) = \$1,204$ . In terms of average awards/Canadian post-secondary student, the estimates for 1967-68 are \$201 and \$1,322 respectively for undergraduates and graduates. The average awards/graduate estimate was greater than the average graduate award because many graduates receive more than one award.

It is important to note that our estimates do not include presently untaxed fellowships and scholarships awarded by the universities themselves and donated by private individuals. As a result, by using the assumption values estimated above we are underestimating the potential revenue gains from the proposed taxation of fellowship and scholarship income.

### B.3 Changed Treatment of Employment Income and Expenses

The tax changes discussed in this section include the standard employment expense allowance, the working mother deduction, the taxation of certain benefits attributable to employees and others though paid for by employers, the taxation of medicare premiums paid by employers, and the incorporation of net income from unemployment insurance. Certain other proposals affecting labour income are evaluated in Chapter 5.

Standard employee expense allowance. The employee expense allowance involved no estimation problems; it was calculated simply as 3 per cent of wage and salary income up to a maximum of \$150 for each wage and salary earner in a tax return group.

Working mother deduction. Our analysis of the working mother deduction included all married females who filed either single or as married for tax purposes. Each working mother was assumed to get a \$500 deduction for each \$300 dependent child up to a maximum of \$2,000 per working wife, with the added requirement that the deduction be no more than two-thirds of the wife's income. We were unable to build the itemization requirement into our model in a meaningful way and therefore neglected it, thus overstating the revenue loss resulting from the deduction.

Additional estimates of the magnitude of the effect of the working mother deduction are presented in Chapter 5 to provide some independent verification of our results. These estimates are in part based upon the underlying estimates presented in Table B-2.

Taxation of personal benefits. Three categories of benefits were included in our analysis of this topic: top-employee benefits, benefits attributable to self-employed persons, and benefits attributable to business proprietors. Benefits attributable to high-income employees were assumed to be 8 per cent of wages and

Table B-2ESTIMATE OF WOMEN WHO HAVE CHILDREN AND ARE IN THE  
LABOUR FORCE, 1970

	<u>Ontario</u>	<u>Canada</u>
	(Thousands)	
TOTAL WOMEN		
Total married women	2,100	5,500
Married women with children less than 6 years old	540	1,400
Total estimated number of children less than 6 years old	790	2,390
Total estimated number of children less than 16 years old	2,370	6,940
TOTAL WOMEN IN THE LABOUR FORCE		
Total married women in the Labour Force	700	1,725
Married women in Labour Force with children less than 6 years old	90	220
Total estimated number of children less than 6 years old whose mother is in Labour Force	135	330
Married women in the Labour Force with children less than 16 years old	330	800
Total estimated number of children less than 16 years old whose mother is in Labour Force	715	1,730

Notes: "Married" women are defined to include women who are widowed, divorced or separated. Data is estimated for 1970 from Dominion Bureau of Statistics, Population Estimates by Marital Status, Age and Sex for Canada and Provinces, 1967; from Vital Statistics, 1965-1970; from Department of Treasury and Economics, Ontario Short-Term Population Projection, 1969-1980; and from Dominion Bureau of Statistics, Labour Force Survey, March, 1970. The estimate of working mothers with children less than 6 years old is based on the assumption that proportionately there were half as many mothers in the labour force with children less than 6 years old as there were mothers in Ontario with children less than 6. We thus assumed that 12.8 per cent of married women in the labour force had children less than 6, whereas the comparable figure for all married women in Ontario is 25.7 per cent. The estimate of the number of children less than 6 with working mothers was based on figures obtained from Vital Statistics, 1965-1970. Estimates indicated that in 1970, the average number of children less than 6 per mother was 1.5. Estimates of married women with children less than 16 and the total number of children less than 16 were based on the 1961 Census distribution of families with wife in the labour force by number of children 15 years and under.



salaries in excess of \$12,000 with a maximum of \$2,000. Because it can be presumed that the incidence of top-employee benefits is primarily among employees of private businesses, estimated attributable benefits were reduced by a factor to allow for the likelihood of an employee being employed by other than a private business.<sup>8/</sup>

Benefits attributable to self-employed individuals who earn commission and/or professional income were estimated at 5 per cent of expenses other than capital cost allowances with a maximum set at \$2,000. Benefits attributable to self-employed individuals who earn their income from unincorporated businesses were estimated at 5 per cent of expenses other than capital cost allowances with a maximum set at \$2,000. A further assumption built in was that if unincorporated business income was less than \$2,500, attributable benefits were limited to \$500.

The way our analysis of these three benefit topics proceeded was that if the first two types of attributable benefits amounted to a total of more than \$2,000, then the benefits attributable to self-employment were set equal to the difference between top-employee benefits estimated and \$2,000. Similarly, if all attributable benefits

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8/ The reduction was based on data in Department of National Revenue, 1969 Taxation Statistics, (Ottawa: Queen's Printer, 1969), Table 2, which indicates that the importance of employees of institutions and governments falls off as indicated below:

Currently assessable income	Fraction of total employees in this income not employed by private businesses
\$12,000 - 15,000	33%
15,000 - 20,000	27%
25,000 and over	8%

High-income employee benefits attributed were therefore reduced by a fraction which declined as total assessable income increased to reflect this relationship. The reduction factor used was 33.3 per cent and it was assumed to decrease at the rate of 1.267 per cent per \$1,000 of additional assessable income.



aggregated to more than \$2,000, then the benefits attributable to business proprietors were set at the difference between total benefits excluding benefits allocable to business proprietors and \$2,000. Full details are provided elsewhere.<sup>9/</sup> Of the total \$185.6 million benefits attributed in the above-described manner, \$108.4 million were high-income employee benefits, \$31.8 million were benefits attributed to self-employed individuals who earned commission and/or professional income and \$44.4 million were benefits attributed to self-employed individuals who earned unincorporated business income.

Medicare premiums paid by employers. This category of employee benefits, which is discussed separately from other benefits, concerns the proposal that employees be required to include in taxable income, medicare premiums paid on their behalf by employers. The analysis of this reform required information on employer medicare contributions as a fraction of wages and the upper limit on medicare contributions on behalf of one employee by an employer. The first parameter was estimated to be 1.2 per cent, the result of dividing total employer medicare contributions in Ontario in 1969 by wage and salary income received by Ontario tax filers.<sup>10/</sup> The second was set at \$177, the annual OMSIP contribution for a family with children.

For each employee, wage and salary income was multiplied by .012 and the result was added to his tax base with a maximum set at \$177. In extrapolating to all of Canada, the resultant estimate was reduced by 33.3 per cent to account for Ontario being above average in terms of employer medicare contributions on behalf of employees.

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<sup>9/</sup> See the listing of the BENFTS function in Bossons, Tax Analyzer Program, op. cit., Appendix G. The assumptions used in this attribution are largely based upon a revision of the earlier assumptions used by the Carter Commission; cf. Report of the Royal Commission on Taxation (Ottawa: Queen's Printer, 1966), Volume 6, Appendix A.

<sup>10/</sup> Employer medicare contributions on behalf of employees totalled \$175 million in 1969 in Ontario, based on an unpublished Department of Treasury and Economics Staff report. Wage and salary income received by Ontario tax filers in 1969 was \$15 billion; cf. 1969 Taxation Statistics, op. cit., Table 9.

Incorporation of net income from unemployment insurance.

Unemployment insurance contributions permitted as a tax deduction were computed as a function of wages and salaries reported on tax returns. For each wage and salary earner the annual unemployment insurance contribution corresponding to the particular wage and salary level was calculated and taken as a base reduction. In addition, the base reduction was reduced by 30 per cent to account for the fact that not all wage and salary earners contribute to the unemployment insurance fund.<sup>11/</sup> The rates used in our analysis were 1969 rates.<sup>12/</sup>

Unemployment insurance benefits included in taxable income were estimated using unpublished data on unemployment insurance benefits obtained from the Unemployment Insurance Commission and reproduced in Table B-3. These benefits were distributed over the tax sample according to the ratio of total benefits to total assessable income for individuals in different income classes, classified by sex. Benefits allocable to individuals with unspecified income were grouped with the bottom income class. No benefits were allocated to taxpayers with assessable incomes over \$10,000, in spite of the few benefit recipients falling in higher income classes according to the data presented in Table B-3.

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<sup>11/</sup> In 1967, 1,890,160 employees out of a possible 2,690,311 were covered by unemployment insurance in Ontario. This worked out to approximately 70 per cent of tax-filing employees being covered by unemployment insurance. Cf. Dominion Bureau of Statistics, 26th Annual Report on Benefit Periods Established and Terminated Under the Unemployment Insurance Commission Act, 1967 (Ottawa, Queen's Printer, 1969), Table 2; 1969 Taxation Statistics, op. cit., Table 9.

<sup>12/</sup> The U.I.C. rate schedule was as follows:

Annual Earnings	Annual Contribution
\$0 -1039	\$ 5.20
1040-1559	10.40
1560-2079	18.20
2080-2599	26.00
2600-3119	33.80
3120-3639	41.60
3640-4159	49.40
4160-4679	57.20
4680-5199	65.00
5200 & over	72.80

This rate schedule was applied only to individuals with wage and salary incomes below \$7,800 in order to exclude higher-salaried employees not covered under the present unemployment insurance program.

Table B-3

DISTRIBUTION OF UNEMPLOYMENT INSURANCE  
BENEFITS BY ASSESSABLE INCOME, 1966

(Thousands of Dollars)

<u>Assessable Income</u>	<u>Benefits Paid to Males</u>	<u>Benefits Paid to Females</u>
0 - 1,999	79,072	42,550
2,000 - 3,999	89,315	11,069
4,000 - 5,999	31,885	909
6,000 - 7,999	7,277	56
8,000 - 9,999	1,626	2
10,000 - 14,999	834	---
over 15,000	---	---
unspecified	10,519	13,069
	<hr/>	<hr/>
TOTAL	220,529	67,657
	<hr/> <hr/>	<hr/> <hr/>

Source: Unemployment Insurance Commission, unpublished tabulations.

B.4 Estimating Procedure for Tax Changes Affecting  
Corporation Source Income

The estimation procedures used to obtain estimates of the effects of the white paper tax reforms on the tax treatment of corporate source income may be divided into three components. In the first component, aggregate components of cash distributions for each taxpayer (other than gross dividends from Canadian companies reported on each tax return) were estimated using data obtained for each tax return. In the second component, the aggregate data presented in section 6.1 of chapter 6 were used to allocate aggregate data on each component of cash distributions for each taxpayer among different types of companies. Having done this, this data was used to allocate other components of accrued income and corporation income taxes to investors based upon the aggregate relationship between income components and cash dividends for each type of company. The third component of the analysis consisted of using the thus obtained estimates of income components to calculate the effects of each of the tax reforms affecting corporate source income.

Components of total cash distributions received. The estimation of the components of the total cash distributions received by an individual from all types of companies was based upon utilization of a number of taxpayer characteristics obtainable from tax returns. Estimates of unreported dividends, for instance, were calculated for each individual tax return differently depending upon the individual's tax-paying status, age, and income. If an individual paid taxes in 1967 and had an assessable income of less than \$10,000, unreported dividends were estimated as 5 per cent of dividends reported on the individual's tax return. A tax-paying individual with assessable income of more than \$10,000 was assumed to have accrued no taxable dividends that



were not reported on his tax return.<sup>13/</sup> If an individual filing a tax return was not liable for taxes in that year, unreported dividends were calculated as 30 per cent of reported dividends (40 per cent in the case of retired non-taxable individuals). Moreover, in the case of individuals forty years old or older, unreported dividends were constrained to be a minimum of \$20. To avoid unrealistic estimates, the estimate of unreported dividends for each taxpayer was constrained to be no greater than \$500. The results of this estimation procedure based on analyses of individual tax returns is consistent with estimates obtainable from aggregate data.<sup>14/</sup>

The same use of tax return information is the basis for the allocation of section 105 distributions and stockholder depletion allowances. The former is estimated simply by prorating an estimate of aggregate section 105 capitalizations obtained from aggregate data over individual tax returns with assessable income in excess of \$25,000 in proportion to dividends reported. This procedure is followed to reflect the fact that section 105 capitalizations are unprofitable for taxpayers whose marginal tax rates are lower than 35 per cent.

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<sup>13/</sup> Because of the required issuance of T-5 slips for all dividend payments over \$100 and because of the relative incentive to report (relative to the U.S. case) provided for low-income taxpayers by the Canadian dividend tax credit, it is likely that dividend under-reporting in Canada would be less than in the U.S. for individuals reporting taxable income. Nevertheless, the estimates used in calculating unreported dividends were based on 1959 U.S. audit estimates. These estimates imply that unreported dividends amounted to an average of roughly 13 per cent of reported dividends for all individuals with taxable incomes less than \$10,000, which probably overstates actual under-reporting by considerable margin. This compares with an estimated average under-reporting of approximately 5 per cent of dividends reported by all individuals with as close income as \$7,000 or less in 1959 in the United States. Cf. Daniel M. Holland, Dividends under the Income Tax (Princeton: Princeton University Press, 1962), Table 21 and also pp. 108-109.

<sup>14/</sup> See discussion in Appendix D to the study; additional analysis of this estimating procedure is provided in John Bossons, "On the Measurement of Unreported Dividends and Corporate Profits in Canada," Working Paper 6701 (University of Toronto, Institute of Policy Analysis, 1967).

Shareholder depletion allowances are estimated for each individual tax return based upon assessable income reported on each tax return as well as upon dividends and investment expenses deducted. (For 1967 data, shareholder depletion was included in investment expenses.) In the absence of more specific data on shareholder depletion allowances deducted, these allowances were assumed to be one third of investment expenses deducted for individuals with reported dividend income of \$2,000 or more. In addition, the estimate thus obtained was adjusted to ensure that the resultant estimate of shareholder depletion did not exceed 16 per cent of dividends received, on the assumption that the average rate of shareholder depletion allowed (an average of 10 per cent, 15 per cent, and 20 per cent rates) amounted to 16 per cent.

Other estimates. Following the estimation of the components of cash distributions received, the resultant aggregate estimates for each tax return were distributed across company types using the estimates for all resident individuals reported in section 6.1 of Chapter 6. The resultant distribution was adjusted to reflect estimated shareholder depletion deductions (in order to make the amount of dividends received from companies in extractive industries consistent with estimates of shareholder depletion); these and other adjustments are made in the process of estimating cash distributions received from different types of companies are described in detail elsewhere.<sup>15/</sup> Aggregate relationships summarized in section 6.1 of Chapter 6 were used to allocate other elements of income allocable to resident individual shareholders as well as to allocate corporation income taxes amongst the shareholders. Additional details regarding the relationship between accrued and realized gains as well as of the relative importance of accrued goodwill gains are presented in Table B-4.

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<sup>15/</sup> See the program listing of subroutine CORIND published in John Bossons, Tax Analyzer Program, op. cit., Appendix G.

Table B-4

ASSUMPTIONS REGARDING GOODWILL GAINS  
FOR DIFFERENT TYPES OF COMPANIES

	<u>Ratio of Accrued Goodwill Gains Per Share to Total Cash Distributions Per Share</u>	<u>Normal (ex-tax) Ratio of Realized Goodwill Gains to Accrued Goodwill Gains</u>
Profitable private companies with taxable incomes less than \$35,000	1.50	.3936
Other small private companies	0.84	.3936
Large private companies	0.86	.5584
Widely-held companies in the extractive industries	1.29	.7350
Large widely-held companies not in the extractive industries	1.33	.7350
Small widely-held companies not in the extractive industries	1.78	.6806

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Notes: All amounts are averages in each class over all shareholdings by resident individuals. Figures in column 1 are obtained from Table 6-6. Figures in the second column are based on assumed average holding periods (lags between purchase and sale of shares) to be 16 years in the case of small private companies, 10 years for large private companies, 4 years for large widely-held companies, and 5 years for small widely-held companies. Average rates of growth of share values are assumed to be 8 per cent in the case of widely-held companies and 6 per cent for private companies.

Having thus obtained estimates of the components of income received or accrued by resident individual shareholders from different types of companies, calculation of the effects of the tax changes proposed by the federal government white paper was relatively a straightforward matter, involving the use of the accounting relationships summarized in Appendix C to the study. The details of the calculation procedures are specified in the program listings cited above.



B.5 Changes in Taxes on Other Investment Income.

Reforms included in this section are those estimated using the computer analysis of individual tax returns. Tax changes described herein are the effects of taxing capital gains realized by individuals on assets other than corporate common stock, changing the tax treatment of capital cost allowances deducted in computing taxable income from rental properties, and changes affecting farm income.

Taxes on capital gains other than on corporate stock.

In order to analyze the tax effects of taxing capital gains and allowing capital losses on unincorporated businesses, net business income reported on the tax record was multiplied by 4 per cent, the assumed ratio of realized capital gains on unincorporated business assets to net income from unincorporated businesses. The resulting figure was reduced by 60 per cent to allow for a lower realization rate resulting from the absence of deemed realization at death.

The analysis of the taxation of non-business capital gains and the allowance of non-business capital losses was slightly more complicated and involved a recognition of three separate types of capital gains: capital gains on rental property, real estate and fixed-income securities. Accrued capital gains on rental properties were assumed to be equal to net rental income, whereas the ratio of accrued capital gains on fixed-income investments to income from interest, estates and other investments was assumed to be .15. Finally, it was assumed that the fraction of accrued capital gains realized on real estate was .5 and on fixed-income securities was .769. In all cases, a 60 per cent reduction was built in to take account of the longer holding periods to be expected in the absence of a provision for deemed realization at death.<sup>16/</sup>

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<sup>16/</sup> The assumptions used to estimate non-corporate capital gains are with few modifications those used by the Carter Commission; cf. Report of the Royal Commission on Taxation, op. cit., Volume 6, Appendix A.

Changed treatment of rental income. It was assumed that 90 per cent of losses on rental property were attributable to capital cost allowances and other specified expenses. If the net rental income of an individual filing a tax return was negative, then his tax base was increased by 90 per cent of his net rental loss to reflect the fact that taxpayers would no longer be allowed to deduct from other income losses from holding property, if that loss is created by capital cost allowances, interest or property taxes.

Changes affecting net farm income. In our analysis of the tax effects of the reforms dealing with net farm income it was assumed that the ratio of realized to accrued goodwill gains on farm property (assuming deemed realization at death) was .4, that the ratio of goodwill gains on farm property to positive net farm income was .05, that the maximum likely goodwill gain on a given piece of farm property was \$10,000 and that the increase in taxable farm income arising from other effects of the changes concerning farm income was 4 per cent.

For each tax filer reporting net farm income, attributable goodwill gains were set at 5 per cent of net farm income with a maximum of \$10,000. Forty per cent of the attributable goodwill gains were assumed to be realized each year under the assumption of deemed realization at death.

## Appendix C

### AN ALGEBRAIC SUMMARY OF RELATIONSHIPS AMONG COMPONENTS OF INCOME FROM COMMON STOCKS

The purpose of this appendix is to present a number of algebraic identities defining relationships among components of income derived from common stocks more precisely than can be done in a purely literary fashion. These identities are presented in order to help keep track of all of the variables relevant to analyses of the effects of the white paper tax proposals which affect this form of income.

Throughout this appendix, we will not distinguish between aggregate variables and variables stated on a per-shareholder basis. The equations presented in this appendix are valid both for aggregate variables and for the fractions of aggregates which are allocable to shareholders of particular companies, so long as all variables in an equation are consistently defined either on one basis or the other.

In addition to defining components of income, a number of identities are presented which define the impact effects of the tax changes proposed by the white paper. It should be noted that, by definition, impact estimates are predicated on unchanged corporate and personal investment behavior. The effects of behavioural adjustments that occur in response to the impact of the white paper reforms will be analyzed elsewhere.

#### 1. Major components of accrued income before personal income taxes

The purpose of this section is to present general identities defining the major components of income accrued by an individual from an investment in corporate equities. We start with total accrued income, noting that total income accrued by a shareholder is equal to cash distributions received plus accrued capital gains:

$$\text{ACCINC} = \text{DIST} + \text{ACCGAN} \quad (\text{C.1})$$

where ACCINC = total accrued income of shareholder  
DIST = cash distributions  
ACCGAN = accrued capital gains

Accrued capital gains are equal to goodwill gains plus retained earnings:

$$\text{ACCGAN} = \text{GOODWL} + \text{RETNS} \quad (\text{C.2})$$

where ACCGAN = total accrued capital gains  
 GOODWL = accrued goodwill gains  
 RETNS = corporate retained earnings

Corporate retained earnings are equal to total after-tax income at the corporate level less cash distributions:

$$\text{RETNS} = \text{BTCI} - \text{CTAX} - \text{DIST} \quad (\text{C.3})$$

where RETNS = corporate retained earnings  
 BTCI = before-tax corporate income accrued  
 CTAX = accrued corporation income taxes  
 DIST = total cash distributions

Total income accrued by a shareholder is thus also equal to the sum of goodwill gains and after-tax income accrued at the corporate level:

$$\text{ACCINC} = \text{BTCI} - \text{CTAX} + \text{GOODWL} \quad (\text{C.4})$$

where ACCINC = total accrued income of shareholder  
 BTCI = before-tax corporate income accrued  
 CTAX = accrued corporation income tax  
 GOODWL = accrued goodwill gains

Equation C.4 is derived by substituting the definition for ACCGAN provided by the equation C.2 in equation C.1, and then substituting from equation C.3 for RETNS.

Finally, it should be noted that there are a number of different types of cash distributions. The most important components of current distributions are defined by the following equation:

$$\text{DIST} = \text{REPDIV} + \text{UNREPD} + \text{S105D} \quad (\text{C.5})$$

where DIST = total cash distributions  
 REPDIV = dividends reported on personal income tax returns  
 UNREPD = unreported cash dividends received  
 S105D = Section 105 distributions

We assume all Section 105 capitalizations to result in cash distributions.

## 2. A digression on earnings growth and real goodwill gains

In this section, the factors underlying the existence of real goodwill gains will be demonstrated. We shall show that real goodwill gains (and losses) may be expected to exist on an ex ante basis, which is to say that they will exist as a component of investor expectations under



conditions of symmetric market rationality.<sup>1/</sup> We shall demonstrate this by deriving the ex ante accrued income on shares of two firms which are regarded as equally rising by the market, have identical financial structures, and for whom it is consequently safe to postulate that equal rates of discount are applied to future earnings. The firms are assumed to differ only in that the future earnings of the first firm are forecast as identical to earnings forecast for the current year, whereas for the second firm a higher level of future earnings is forecast. It is assumed that both firms are expected to have the same earnings per share in the current year. We shall also assume the absence of any general price inflation.

For the first firm, the market value of its shares is the discounted present value of earnings allocable to shareholders, which is

$$V_1 = \sum_{t=1}^{\infty} X_0 / (1+r)^t = X_0 / r \quad (C.6)$$

where  $V_1$  = market value per share for firm 1 common stock

$X_0$  = earnings per share predicted for current and future years

$r$  = rate of discount applied by the market to expectations of earnings for firms 1 and 2

For this firm, total income per share in the forthcoming year expected to be accrued by shareholders must equal the rate of discount times this market value, so that

$$ACCINC_1 = rV_1 \quad (C.7)$$

where  $ACCINC_1$  = total income accrued by shareholder per share for firm 1

$V_1$  = market value per share of firm 1

$r$  = market rate of discount

From equations C.1, C.6, and C.7, it then follows that

$$ACCGAN_1 = X_0 - DIST_1 \quad (C.8)$$

where  $ACCGAN_1$  = accrued capital gain per share for firm 1

$X_0$  = earnings per share expected in current year

$DIST_1$  = total cash distributions per share expected to be received in current year

From this equation and the definition of goodwill gains provided by equation C.2, it follows that no goodwill gains will exist on an ex ante basis for firm 1.

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<sup>1/</sup> Cf. Merton H. Miller and Franco Modigliani, "Dividend Policy, Growth, and the Valuation of Shares," Journal of Business, 34 (October 1961), page 427.

For the second firm, the market value of its shares is defined in the same way, except that the stream of earnings being discounted is expected to be higher in the future than in the current year. The expected per-share earnings stream for firm 2 will be defined as  $E_t$ , and will be assumed to take the following form:

$$\begin{aligned} E_t &= X_0 \quad \text{for } t = 1 \\ &= X_0 + \Delta X \quad \text{for } t > 1 \end{aligned}$$

The market valuation of this earnings stream will be the discounted present value of these earnings, or

$$V_2 = \sum_{t=1}^{\infty} E_t / (1+r)^t = \frac{X_0}{r} + \left( \frac{1}{1+r} \right) \frac{\Delta X}{r} \quad (\text{C.9})$$

where  $V_2$  = market value per share of firm 2's common stock  
 $E_t$  = expected earnings per share in year  $t$   
 $X_0$  = earnings per share predicted for current year  
 $\Delta X$  = additional earnings per share predicted for future years  
 $r$  = market rate of discount applied to expectations for firms 1 and 2

As with firm 1 (or any other comparable firm),

$$\text{ACCINC}_2 = rV_2 \quad (\text{C.10})$$

where  $\text{ACCINC}_2$  = total income per share expected to be accrued in current year by shareholder in firm 2  
 $r$  = market rate of discount  
 $V_2$  = market value per share of firm 2

From equations C.1, C.9, and C.10, it then follows that for the second firm

$$\text{ACCGAN}_2 = X_0 + \Delta X / (1+r) - \text{DIST}_2 \quad (\text{C.11})$$

where  $\text{ACCGAN}_2$  = capital gain per share expected to be accrued for firm 2 in current year  
 $X_0$  = after-tax earnings per share expected for firm 2 in current year  
 $\Delta X$  = additional earnings per share expected in future years  
 $r$  = market rate of discount  
 $\text{DIST}_2$  = cash distributions per share expected from firm 2

Since  $(X_0 - \text{DIST}_2)$  is by definition the earnings expected to be retained by firm 2 in the current year, it follows from this equation and equation C.2 that

$$\text{GOODWL} = \Delta X / (1+r) \quad (\text{C.12})$$

where  $\text{GOODWL}$  = accrued goodwill gains per share  
 $\Delta X$  = additional earnings per share expected in future years

$r$  = market rate of discount applicable to future earnings

Thus the second firm will have both a higher market value than firm 1 and higher current accrued income. Needless to say, both must go together. This necessity means that accrued income per share is higher than cash distributions plus retained earnings, thus resulting in goodwill gains.

What we have shown is that goodwill gains will arise on an ex ante basis if earnings allocable to current shareholders without further investment on their part are expected to grow. (Similarly, goodwill losses will arise on an ex ante basis for firms whose per share earnings are expected to decline.) On the average, we may expect that expected and realized earnings will be roughly equal. As a result, the size of actual goodwill gains will (in the absence of inflation) depend on the general rate of growth of corporate earnings allocable to current shareholders. The effect of inflation will be to increase goodwill gains over what they would otherwise have been.

### 3. The effect of untaxed corporate income

The effect of untaxed corporate income is implicit in the identities defined in the preceding section, since the effect of adding more untaxed income is merely to increase total before-tax corporate income while keeping accrued corporate tax constant. Nevertheless, because the distinction will become significant when the effects of integrating the personal and corporation income taxes are discussed, it will be useful to introduce the distinction first.

We start with a definitional statement. Accrued before-tax corporate income is partly untaxed because of tax shelters at the corporate level:

$$BTCI = TBTCI + UNTINC \quad (C.13)$$

where  $BTCI$  = total before-tax corporate income accrued  
 $TBTCI$  = taxed before-tax corporate income  
 $UNTINC$  = untaxed corporate income accrued

Cash distributions are made partly from taxed surplus and partly from untaxed surplus:

$$DIST = TAXDIV + UNTDIV \quad (C.14)$$

where DIST = total cash distributions  
 TAXDIV = distributions out of taxed surplus  
 UNTDIV = distributions out of untaxed surplus

Retentions may likewise be divided up into retentions of taxed income and retained untaxed income:

$$\text{TAXRET} = \text{TBTCI} - \text{CTAX} - \text{TAXDIV} \quad (\text{C.15})$$

where TAXRET = retained taxed income  
 TBTCI = taxable before-tax corporate income  
 CTAX = corporate taxes accrued  
 TAXDIV = cash distributions from taxed surplus

$$\text{UNTRET} = \text{UNTINC} - \text{UNTDIV} \quad (\text{C.16})$$

where UNTRET = retained untaxed income  
 UNTINC = untaxed corporate income  
 UNTDIV = cash distributions out of untaxed surplus

$$\text{RETNS} = \text{TRETNS} + \text{URETNS} \quad (\text{C.17})$$

where RETNS = total retained corporate earnings  
 TAXRET = retained untaxed income  
 UNTRET = retained taxed income

Total income accrued by a shareholder before personal income taxes may thus be rewritten in terms of taxed and untaxed components (taking account of taxes at the corporate level):

$$\text{ACCINC} = \text{TAXDIV} + \text{UNTDIV} + \text{TAXRET} + \text{UNTRET} + \text{GOODWL} \quad (\text{C.18})$$

where ACCINC = total income accrued by shareholder  
 TAXDIV = cash distributions from taxed surplus  
 UNTDIV = cash distributions from untaxed surplus  
 TAXRET = retained taxed income  
 UNTRET = retained untaxed income  
 GOODWL = accrued goodwill gains

Equation C.18 is derived from substituting from equation C.3 in equation C.4 and then substituting from equations C.14 and C.17.

Another way of summarizing this result is simply to write:

$$\text{ACCINC} = \text{TBTCI} - \text{CTAX} + \text{UNTINC} + \text{GOODWL} \quad (\text{C.19})$$

where ACCINC = total accrued income  
 TBTCI = taxable before-tax corporate income  
 CTAX = corporate tax accrued  
 UNTINC = untaxed corporate income  
 GOODWL = accrued goodwill gains

Equation C.19 is obtained simply by substituting from equations C.15 and C.16 in equation C.18.



#### 4. Effect of integration upon the personal income tax base

In this section we show the effect of integration upon the personal income tax base of shareholders, ignoring the effects of any changes in corporation income taxes. (By assuming corporate taxes unchanged, we make the presentation simpler) The effects of corporate tax changes are described in the next section.

In analyzing the effects of integration, it is necessary to differentiate between distributions out of taxed surplus (which would automatically be "integrated" and hence carry credit for corporation income taxes) and distributions from untaxed surplus. The latter would remain taxable under the white paper proposals but would not carry credit for corporation income tax. Pulling together identities presented in earlier sections of this appendix, we can define distributions out of taxed surplus as:

$$\text{TAXDIV} = \text{REPDIV} + \text{UNREPD} + \text{S105D} - \text{UNTDIV} \quad (\text{C.20})$$

where TAXDIV = cash distributions from taxed surplus  
 REPDIV = dividends reported on tax returns  
 UNREPD = unreported dividends  
 S105D = Section 105 distributions  
 UNTDIV = distributions from untaxed surplus

This equation follows from equations C.5 and C.14.

The total amount of income carrying credit for corporation income tax paid at the corporate level would be the sum of cash distributions from taxed surplus and any additional retained taxed income allocated to shareholders. After "grossing-up" this income by the allocated creditable tax, the total income subjected to personal income tax by the integration proposals would be:

$$\text{ALLBAS} = \text{TAXDIV} + \text{ALLRET} + \text{ALLTAX} \quad (\text{C.21})$$

where ALLBAS = total allocated before-tax corporate income  
 TAXDIV = cash distributions from taxed surplus  
 ALLRET = allocated retained earnings  
 ALLTAX = allocated credit for corporate income tax

Since cash distributions out of untaxed surplus would continue to be included in taxable personal income, the change in the personal income

tax base resulting from integration would be:

$$\text{INTBAS} = \text{ALLBAS} + \text{UNTDIV} - \text{REPDIV} \quad (\text{C.22})$$

where INTBAS = additional personal income tax base resulting from integration

ALLBAS = total allocated before-tax corporate income

UNTDIV = cash distributions from untaxed surplus

REPDIV = dividends currently reported on tax returns

The effect of integration is then calculable by multiplying INTBAS by the effective average personal income tax rate applicable to this income, subtracting ALLTAX from the result, and then adding the separate dividend tax credit eliminated by integration.

We have chosen to show the effect of incorporating unreported dividends into the personal income tax base separately from other effects of integration. The following identity defines these two components:

$$\text{INTBAS} = \text{UNREPD} + \text{PURINT} \quad (\text{C.23})$$

where INTBAS = total additions to the personal income tax base resulting from integration

UNREPD = unreported dividends brought into income through integration

PURINT = residual "pure" effect of integration on the personal income tax base, excluding unreported dividends

The effect of integration excluding the effect of bringing unreported dividends into the tax base can then be obtained as

$$\text{PURINT} = \text{ALLBAS} - (\text{TAXDIV} - \text{S105D}) \quad (\text{C.24})$$

where PURINT = residual "pure" effect of integration on the personal income tax base

ALLBAS = total allocated before-tax corporate income

TAXDIV = cash distributions from taxed surplus

The result is obtained by substituting for (UNTDIV - REPDIV) in equation C.22 from equation C.20 and using equation C.23.

## 5. The effects of corporate tax changes

The effect of changes in corporate taxes is straightforward if (as is assumed in all impact estimates) cash distributions remain unchanged. The changes can best be incorporated by breaking the taxable income and taxes defined in previous sections into two parts: that resulting from the previous tax system and that added by the change in the corporation

income tax. Thus we define

$$TBTCI = OTBTCI + ATBTCI \quad (C.25)$$

where TBTCI = total taxable before-tax corporate income  
 OTBTCI = old taxable before-tax corporate income  
 ATBTCI = additional taxable before-tax corporate income  
 resulting from the tax changes

$$CTAX = OCTAX + ACTAX \quad (C.26)$$

where CTAX = total corporate taxes accrued  
 OCTAX = old corporate tax accruals  
 ACTAX = additional corporate tax accrued as a result of  
 the tax changes

Having specified the effect in this way, we are implicitly assuming the initial impact of a corporate tax change to affect only retained earnings: retained earnings are decreased by any increase in corporate tax resulting from the tax reform.





## Appendix D

### ALLOCATION OF INCOME ACCRUED BY CORPORATIONS AMONG DIFFERENT INVESTORS IN 1964

For a number of reasons it is not easy to distribute total before-tax corporate income and other variables among different types of companies or to allocate this income between resident and non-resident investors in each type of company. Some information on ownership interests by non-resident investors is available only after a substantial lag. Moreover, since the responsibility for publication of aggregate corporation taxation statistics was transferred from the Department of National Revenue to the Dominion Bureau of Statistics in 1966, information formerly published on the distribution of elements of income among profit and loss companies in different size classes is no longer available. Because of this, it has been necessary to rely extensively on 1964 data. The detailed distribution of incomes and taxes obtained for that year has been applied in the text to aggregate data for industry groups published for 1967, the most recent year for which aggregate data are available.

In addition to 1964 being the last year for which detailed taxation statistics are available for companies in different size classes, it is useful to use taxation statistics data for that year as a basis for integrating into our estimates the result of a detailed analysis of the distribution of ownership of large companies in that year which has been done by G. R. Conway. Professor Conway's study presents financial data for 540 companies with assets in excess of \$25 million plus data for 30 other large companies falling below this asset limit, with all companies being classified by degree of foreign ownership as well as by type of control. The 30 companies with assets of less than \$25 million which are included consist partly of wholly-owned subsidiaries of the 540 companies with both assets and taxable income in excess of \$1 million and partly of several other companies with assets of over \$1 million and taxable income of over \$5 million.<sup>1/</sup>

The sample consists of virtually all companies other than financial institutions with assets of greater than \$25 million.<sup>2/</sup> The 570 companies in the

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<sup>1/</sup> For a fuller description of the survey, see G. R. Conway, "The Supply of and Demand for Canadian Stocks" (multilith, 1967), Chapter VI, pages 98-99. Conway's data was obtained from individual corporation tax returns, provided to him in grouped form to avoid disclosure of individual data.

<sup>2/</sup> Most financial institutions were excluded from the survey. Specifically, banks, insurance companies, trust companies, mortgage loan companies and open-end investment funds were excluded. However, financial companies and closed end investment companies meeting the asset on income criteria were included in the sample.

sample account for just over one-half of taxable current year profits generated by the corporate sector in 1964.

The purpose of this appendix is to summarize the data obtainable from these various sources for the distribution of variables of interest over different types of corporations in 1964. The first four tables present data obtained primarily from the Conway study, supplemented where necessary by information obtained from published aggregate data obtained from tax returns. The ownership information from which amounts allocable to Canadian residents have been derived for different groups of companies in the Conway study have been obtained from information returns submitted under the Corporation and Labour Unions Reporting Act, supplemented by additional information obtained from public records for 101 of the largest companies listed on Canadian stock exchanges.

Tables D-5 and D-6 provide summary information obtained from tabulations presented in the published aggregate taxation statistics.<sup>3/</sup>

Aggregate data for different types of companies, classified by profitability status and by whether or not such companies were in the extractive industries, is presented in Tables D-7 and D-8. These estimates are obtained from data presented in the preceeding six tables as well as from further data in published Taxation Statistics for companies classified by profit and loss status.

The allocation of these aggregate estimates for each company type among different classes of investors is of necessity somewhat problematical. For large non-financial companies, this allocation has been based upon estimates obtained from the detailed analyses of companies included in the Conway sample which are summarized in Tables D-3 and D-4. For other companies the aggregate amounts shown for all companies in each company type group in Tables D-7 and D-8 have been allocated using average ownership ratios computed from allocation of cash dividends declared. The allocation of cash dividends among investor classes is presented in Table D-9.

In examining Table D-9, it is worth noting that investors have implicitly been classified into four groups: Canadian non-financial corporations, financial intermediaries and tax-exempt organizations, resident individuals, and foreign investors. Dividends received by Canadian non-financial corporations have been

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<sup>3/</sup> Department of National Revenue, 1966 Taxation Statistics, Part II: Corporations--1964 (Ottawa: Queen's Printer, 1966). This data provides aggregate amounts for different groups of companies, not broken down by profitability status, by ownership or by type of company.



## Appendix D

### ALLOCATION OF INCOME ACCRUED BY CORPORATIONS AMONG DIFFERENT INVESTORS IN 1964

For a number of reasons it is not easy to distribute total before-tax corporate income and other variables among different types of companies or to allocate this income between resident and non-resident investors in each type of company. Some information on ownership interests by non-resident investors is available only after a substantial lag. Moreover, since the responsibility for publication of aggregate corporation taxation statistics was transferred from the Department of National Revenue to the Dominion Bureau of Statistics in 1966, information formerly published on the distribution of elements of income among profit and loss companies in different size classes is no longer available. Because of this, it has been necessary to rely extensively on 1964 data. The detailed distribution of incomes and taxes obtained for that year has been applied in the text to aggregate data for industry groups published for 1967, the most recent year for which aggregate data are available.

In addition to 1964 being the last year for which detailed taxation statistics are available for companies in different size classes, it is useful to use taxation statistics data for that year as a basis for integrating into our estimates the result of a detailed analysis of the distribution of ownership of large companies in that year which has been done by G. R. Conway. Professor Conway's study presents financial data for 540 companies with assets in excess of \$25 million plus data for 30 other large companies falling below this asset limit, with all companies being classified by degree of foreign ownership as well as by type of control. The 30 companies with assets of less than \$25 million which are included consist partly of wholly-owned subsidiaries of the 540 companies with both assets and taxable income in excess of \$1 million and partly of several other companies with assets of over \$1 million and taxable income of over \$5 million.<sup>1/</sup>

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<sup>1/</sup> For a fuller description of the survey, see G. R. Conway, "The Supply of and Demand for Canadian Stocks" (multilith, 1967), Chapter VI, pages 98-99. Conway's data was obtained from individual corporation tax returns, provided to him in grouped form to avoid disclosure of individual data.

<sup>2/</sup> Most financial institutions were excluded from the survey. Specifically, banks, insurance companies, trust companies, mortgage loan companies and open-end investment funds were excluded. However, financial companies and closed end investment companies meeting the asset on income criteria were included in the sample.

sample account for just over one-half of taxable current year profits generated by the corporate sector in 1964.

The purpose of this appendix is to summarize the data obtainable from these various sources for the distribution of variables of interest over different types of corporations in 1964. The first four tables present data obtained primarily from the Conway study, supplemented where necessary by information obtained from published aggregate data obtained from tax returns. The ownership information from which amounts allocable to Canadian residents have been derived for different groups of companies in the Conway study have been obtained from information returns submitted under the Corporation and Labour Unions Reporting Act, supplemented by additional information obtained from public records for 101 of the largest companies listed on Canadian stock exchanges.

Tables D-5 and D-6 provide summary information obtained from tabulations presented in the published aggregate taxation statistics.<sup>3/</sup>

Aggregate data for different types of companies, classified by profitability status and by whether or not such companies were in the extractive industries, is presented in Tables D-7 and D-8. These estimates are obtained from data presented in the preceeding six tables as well as from further data in published Taxation Statistics for companies classified by profit and loss status.

The allocation of these aggregate estimates for each company type among different classes of investors is of necessity somewhat problematical. For large non-financial companies, this allocation has been based upon estimates obtained from the detailed analyses of companies included in the Conway sample which are summarized in Tables D-3 and D-4. For other companies the aggregate amounts shown for all companies in each company type group in Tables D-7 and D-8 have been allocated using average ownership ratios computed from allocation of cash dividends declared. The allocation of cash dividends among investor classes is presented in Table D-9.

In examining Table D-9, it is worth noting that investors have implicitly been classified into four groups: Canadian non-financial corporations, financial intermediaries and tax-exempt organizations, resident individuals, and foreign investors. Dividends received by Canadian non-financial corporations have been

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<sup>3/</sup> Department of National Revenue, 1966 Taxation Statistics, Part II: Corporations--1964 (Ottawa: Queen's Printer, 1966). This data provides aggregate amounts for different groups of companies, not broken down by profitability status, by ownership or by type of company.



assumed to equal dividends paid which are allocable to such corporations, thus ignoring dividend "float" and understating intercorporate dividends. Non-tabulated companies other than banks and insurance companies have been ignored. Because of these and other difficulties involved in allowing for inter-corporate holdings as well as in obtaining an accurate estimate of non-resident ownership (including beneficial interests of non-resident holdings through Canadian nominees), the estimates presented in Table D-9 necessarily contain measurement errors of probable significance. In particular, it would appear that the estimates of cash dividends paid to resident individuals presented in Table D-9 are somewhat overstated.<sup>4/</sup> Nevertheless, since the important aspect of the estimates presented in Table D-9 is the overall distribution of resident individual ownership over the different types of companies, errors in the total figures are of importance only to the extent that they reflect errors in the distribution of the total amounts.

The amounts of different variables shown in Tables D-7 and D-8 which are allocable to Canadian resident individuals are presented in Tables D-10 and D-11. Since the estimates presented for large non-financial companies are based on analyses of individual corporations, the estimates presented in these tables should provide a reasonably accurate representation both of the relative importance of income allocable to resident individual shareholders from different types of companies and of the average relationships among profits, taxes, and dividends for the different company groups.

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<sup>4/</sup> It is of course equally difficult to build up estimates of total dividends received by resident individuals from data reported on individual personal income tax returns. Nevertheless, based on information presented elsewhere, it would appear that dividends received by individuals were unlikely to have exceeded \$480 million in 1964. (Total dividends reported on individual income tax returns by resident individuals amounted to \$451 million in that year) Cf. 1966 Taxation Statistics, Part I: Individuals (Ottawa: Queen's Printer, 1966), Table 2; and J. Bossons, "On the Measurement of Unreported Dividends and Corporate Profits in Canada", Working Paper 6701 (University of Toronto, Institute for Policy Analysis, 1967). Even allowing for changes over 1964 in dividends declared but not paid which are allocable to resident individuals, total dividends allocable to resident individuals in 1964 likely did not exceed \$500 million. Moreover, to be consistent with the estimates presented in this appendix, it is necessary to reduce total dividends allocable to resident individuals in 1964 to make it equivalent to dividends allocable to resident individuals which were declared within corporate fiscal years ending in 1964, a reduction of approximately \$8 million.

Table D-1

BASIC DATA FOR MINING AND OIL COMPANIES  
OBTAINED FROM 1964 TAX RETURNS  
(millions of dollars)

	Fully- tabulated companies	Large Foreign owned private companies	Small companies	Large widely-held companies	
				Total	Share allocable to Canadian residents
Number of companies	2,105	15	2,049	41	--
Taxable current year profit of profitable companies	394	33	46	315	154
Corporate income taxes accrued	187	16	14	157	77
Depletion allowance	164 )	96	9	279	121
Exempt income from new taxes	220 )				
Dividends paid	444	26	93	325	158

Notes: Mining and oil companies are defined to include iron and steel mills and petroleum refineries, in view of the importance of extractive operations in such companies' activities. Figures for fully-tabulated companies are, with the exception of exempt income from new mines, taken from Department of National Revenue, 1966 Taxation Statistics, Part II: Corporations--1964 (Ottawa: Queen's Printer, 1966), Table 4, and include both profit and loss companies. The estimate for exempt income from new mines is obtained by deducting depletion allowances claimed by companies in all industries (reported in 1966 Taxation Statistics, loc. cit.) from the total depletion and exempt mining income claimed by 570 large corporations for which summary data obtained from 1964 tax returns and CALURA information returns are presented in G. R. Conway, "The Supply of and Demand for Canadian Stocks" (multilith, 1967), Table VI-14. As figures for large foreign-owned private companies are obtained by multiplying figures shown in Conway, op. cit., Table VI-15, for 13 foreign-owned private mining and oil companies by the ratio of depletion allowances claimed by the 13 firms shown separately. Total taxable income shown for small companies are obtained from Dominion Bureau of Statistics, 1967 Corporation Taxation Statistics (Ottawa: Queen's Printer, 1969), Table 7, for companies with assets less than \$5 million, deflated to allow for total change in profits in these industry groups between 1964 and 1967. The dividend and tax figures shown for small companies has been adjusted to be consistent with data shown in Table D-2 after deflating to allow for changes between 1964 and 1965. Data for large widely-held companies' profits and dividends are obtained as a residual; they are pro-rated between resident and foreign investors using the data presented in Table D-2. Figures for depletion allowances and exempt mining income for widely-held companies are calculated from data presented in Conway, op. cit., Table VI-14, by assuming percentage of foreign ownership to be the mid-range of each ownership class shown separately, after adjusting for depletion allowances not allocable to mining and oil companies.

Table D-2

REPORTED 1965 PROFITS ALLOCABLE TO COMMON SHAREHOLDERS  
OF 101 LARGE, WIDELY-HELD COMPANIES  
(millions of dollars)

	<u>Allocable to Canadian Residents</u>	<u>Allocable to Foreign Investors</u>	<u>Total</u>	<u>Percentage allocable to Canadians</u>
Companies in extractive industries:				
Reported after-tax profits allocable to common stock	360	376	736	48.9%
Dividends	187	198	385	48.6
Other Companies:				
Reported after-tax profits allocated to common stock	656	299	955	68.7
Dividends	368	128	496	72.6
All Companies:				
Reported after-tax profits allocated to common stock	1,016	675	1,691	60.1
Dividends	555	326	881	63.0

Source: Data for individual companies presented in G. R. Conway, "The Supply of and Demand for Canadian Stocks" (multilith, 1967), Table VI-13. Preferred dividends have been deducted from after-tax net income reported by each company in arriving at reported net profits allocable to common shareholders. The share of profits and dividends allocable to non-residents includes the effect of both direct and indirect holdings, and is computed after eliminating the effect of intercorporate shareholdings.



Table D-3

SUMMARY OF 1964 SURVEY OF 570 LARGE NON-FINANCIAL COMPANIES  
(millions of dollars)

	<u>Foreign-owned private-companies</u>		<u>Canadian owned private companies</u>	<u>Widely-held companies</u>		<u>All Companies</u>
	<u>In extractive industries</u>	<u>Others</u>		<u>In extractive industries</u>	<u>Other</u>	
Number of companies	15	146	60	41	308	570
Taxable income	33	634	153	315	914	2,049
Corporation income taxes	16	317	77	157	457	1,024
Depletion allowance plus exempt income from new mines	96	--	--	279	--	375
Capital cost allowances	34	221	59	424	860	1,598
Dividends paid	26	136	33	325	855	1,375
Dividends received	1	64	59	188	381	693
Mine development writeoff	80	--	--	179	--	259

Notes: This table is based on data presented in G. R. Conway, "The Supply of and Demand for Canadian Stocks" (multilith, 1970), Table VI-14 and pp. 114-119. Figures shown for foreign-owned private companies in the extractive industries are obtained as in Table D-1. Other figures for private companies are obtained from Conway, loc. cit., by assuming that all 100 percent foreign-owned firms are also private, and that the remaining 43 private companies have the same average value for each variable shown as the 163 non-extractive companies which are either completely foreign-owned or completely resident-owned. In allocating amounts between foreign-owned and Canadian-owned shares of the 43 private companies jointly owned by residents and non-residents, the fractional Canadian ownership of these companies is assumed to be the same as for all other partially foreign-owned companies shown in Conway, loc. cit. The fraction of each variable allocable to Canadian resident shareholders of these companies is calculated separately for each variable from data for companies in different ownership classes. Data for widely-held companies in the extractive industries is obtained from Table D-1. Data for other widely-held companies is calculated as a residual after adjustments for consistency. Dividends received and capital cost allowances have been calculated as a residual for all widely-held companies and pro-rates across the two classes in proportion to the sum of taxable income plus exempt income from new mines, subject to adjustment in the case of dividends received to make the results consistent with aggregate results reported in 1966 Taxation Statistics, op. cit., Table 4.



Table D-4

SHARE OF 570 LARGE WIDELY-HELD COMPANIES ALLOCABLE  
TO CANADIAN RESIDENT INDIVIDUALS IN 1964  
(millions of dollars)

	<u>Allocable to Canadian Investors</u>			<u>Allocable to financial institutions &amp; non-profit organizations</u>	<u>Allocable to resident individuals</u>
	<u>Companies in extractive industries</u>	<u>Other Companies</u>	<u>Total</u>		
Taxable income	154	557	711	149	562
Corporation income taxes	77	280	357	75	282
Depletion allowance and exempt mining income	121	--	121	25	96
Dividends paid	158	475	633	133	500
Capital cost allowances	202	562	764	160	604
Dividends received	103	224	305	64	241
Writeoff of mine development expenses	64	--	64	13	51

Notes: The first part of this table is based upon data presented in G. R. Conway, "The Supply of and Demand for Canadian Stocks" (multilith, 1967), Table VI-14 and in Tables D-1 and D-3 above. Total amounts allocable to Canadian investors are calculated by assuming the percentage of foreign ownership in each of six different ownership classes for partially foreign-owned companies to be the midpoint of each class, and then adjusting the result by subtracting from the resultant totals the amounts shown for Canadian-owned private companies in Table D-3. Institutional shareholdings in these companies are assumed to be 21 percent of Canadian resident shareholdings, based on data presented in Conway, op. cit., Tables II-3, II-5, II-8 and Chapter IV. Shareholdings of mutual funds are included with those of resident individuals rather than in institutional totals.

Table D-5

SUMMARY OF DATA PROVIDED FOR ALL  
FULLY-TABULATED COMPANIES IN 1964  
(millions of dollars)

	<u>Profit companies with taxable income less than \$35,000</u>	<u>Loss companies not in extractive industries</u>	<u>Companies in extractive industries</u>	<u>Other Companies</u>	<u>Total</u>
Number of companies	76,158	36,715	2,105	9,193	124,171
Taxable current-year income of profitable companies	640	--	394	3,329	4,363
Corporation income taxes	134	--	164	1,273	1,531
Dividends paid	177	102	444	1,319	2,044
Capital cost allowances	420	421	553	1,475	2,869
Depletion	3	--	164	15	182
Mine development writeoff	1	9	342	12	364

Notes: Figures for profit companies with taxable income less than \$35,000 are taken from Department of National Revenue, 1966 Taxation Statistics, Part II: Corporations--1964 (Ottawa: Queen's Printer, 1966), Table 6, except for taxes which are calculated using the 21 percent rate to include foreign taxes for which credit is given. Figures for loss companies not in the extractive industries are obtained from ibid., Table 4, as are figures for all companies in extractive industries and for all fully-tabulated companies. Data for "other companies" is calculated as a residual.

Table D-6

SUMMARY 1964 DATA FOR FULLY-TABULATED COMPANIES  
IN THE EXTRACTIVE INDUSTRIES  
(millions of dollars)

	Profit Companies			Loss Companies		
	<u>Mining</u>	<u>Iron and Steel Mills</u>	<u>Petroleum Refining</u>	<u>Mining</u>	<u>Iron and Steel Mills</u>	<u>Petroleum Refining</u>
Number of companies	721	90	24	1,229	29	12
Taxable income	262	54	78	-24	-7	-7
Corporation income tax	126	25	36	--	--	--
Dividends paid	261	20	76	59	22	6
Capital cost allowances	159	84	60	106	104	40
Depletion	117	7	31	8	1	--
Mine development writeoff	38	2	11	230	--	61
Canadian dividends received	118	3	17	13	1	13
Foreign dividends received	0	0	0	1	0	1

Source: Department of National Revenue, 1966 Taxation Statistics, Part II: Corporations--1964 (Ottawa: Queen's Printer, 1966), Table 4.

Table D-7

DISTRIBUTION OF TOTAL PROFITS, TAXES, AND DIVIDEND  
PAYMENTS BY TYPE OF COMPANY, 1964  
(millions of dollars)

	Number of Companies	Current year taxable profits	Corporation income tax accrued	Cash dividends paid
<u>PROFIT COMPANIES</u>				
Companies in extractive industries:				
Foreign-owned large private companies	12	33	16	21
Large widely-held companies	32	315	157	256
Other companies	791	46	14	80
Large companies in other industries:				
Foreign-owned private companies	137	634	317	128
Canadian-owned private companies	45	153	77	25
Widely-held non-financial companies	289	914	457	780
Banks and insurance companies	232	199	96	58
Trust and mortgage companies	1,237	68	30	26
Small companies in other industries:				
Companies with taxable incomes of less than \$35,000	76,158	640	134	177
Other companies	7,485	1,560	607	361
TOTAL, profit companies	86,418	4,562	1,905	1,912
<u>LOSS COMPANIES</u>				
Companies in extractive industries:				
Foreign-owned large private companies	3	-3	--	5
Large widely-held companies	9	-29	--	69
Other companies	1,258	-6	--	13
Large companies in other industries:				
Foreign-owned private companies	9	-33	--	8
Canadian-owned private companies	15	-8	--	8
Widely-held non-financial companies	19	-48	--	49
Banks and insurance companies	288	-50	--	14
Trust and mortgage companies	331	-4	--	1
Small companies in other industries	36,351	-313	--	36
TOTAL, loss companies	38,283	-494	--	203
TOTAL FOR ALL COMPANIES	124,701	4,068	1,905	2,115

Notes: 1. The detailed distribution shown in this table is based on data presented in Tables D-1 and D-3 above, as well as on additional data for fully tabulated companies presented in Department of National Revenue, 1966 Taxation Statistics, Part II: Corporations--1964 (Ottawa: Queen's Printer 1966), Tables 2 and 4, and on additional supplementary information on banks and insurance companies noted below. In general, data for large companies other than banks and insurance companies has been distributed between profit and loss companies using data for companies with assets greater than \$25 million presented in 1966 Taxation Statistics, op. cit., Table 5. Data on profitable companies with taxable incomes of less than \$35 thousand have been obtained from *ibid.*, Table 6. Data for other smaller companies have been obtained as residuals. Lacking more accurate data, all profitable companies with taxable income of less than \$35 thousand have been allocated to industries other than mining and oil; this procedure thus overstates items shown for other smaller companies in the extractive industries and understates items shown for other smaller companies in other fields.



Notes to Table D-7 (cont'd)

2. The estimated numbers of companies shown in the first column of this table are obtained from 1966 Taxation Statistics, op. cit., Tables 1 and 4, as well as from Tables D-1, D-3, and D-6 above. Data on the number of large companies not shown separately in Taxation Statistics has been allocated between profit and loss categories in proportion to dividends paid.
3. With the exception of data for numbers of companies, other variables have been allocated between profit and loss companies in accordance with the following assumptions:
  - a) All trust companies and mortgage companies have been included with companies having assets greater than \$25 million.
  - b) Of the dollar amounts shown for loss companies in the extractive industries, 85 percent have been assumed to be allocable to large companies. These amounts have been allocated in private and widely-held companies in proportion to total amounts shown for such companies in Table D-1 and D-4.
  - c) Total amounts for other large companies have been calculated as the difference between amounts shown for companies with assets greater than \$25 million in 1966 Taxation Statistics, op. cit., Table 5, as well as on additional data shown in G. R. Conway, "The Supply of and Demand for Canadian Stocks" (multilith, 1967).
  - d) For companies not in the extractive industries, it has been assumed that the distribution of amounts between profit and loss companies with assets greater than \$25 million applies to all large companies other than banks and insurance companies and trust and mortgage loan companies.
  - e) For small companies, it has been assumed that the distribution of companies between profit and loss companies with assets of less than \$25 million applies uniformly to companies in other fields after adjusting for amounts allocated to companies in the extractive industries.
4. Data on profits and taxes of banks and insurance companies have been obtained from 1966 Taxation Statistics, op. cit., Table 1. Total cash dividends for these companies have been obtained from Bank of Canada, Statistical Summary, 1967 Supplement, page 51, and from the Report of the Superintendent of Insurance for Canada, 1967, Tables 4E and 5. Total dividends have been prorated over profit and loss companies in proportion to the absolute magnitude of profits and losses.

Table D-8

ELEMENTS OF EXEMPT INCOME ALLOCABLE  
TO DIFFERENT TYPES OF COMPANIES, 1964  
(millions of dollars)

	<u>Capital cost allowances</u>	<u>Depletion and exempt income of new mines</u>	<u>Mine development writeoff</u>	<u>Exempt dividend receipts</u>
<u>PROFIT COMPANIES</u>				
Companies in extractive industries:				
Foreign-owned large private companies	18	91	12	1
Large widely-held companies	227	266	27	127
Other companies	58	6	12	10
Large companies in other industries:				
Foreign-owned private companies	178	--	--	58
Canadian-owned private companies	47	--	--	53
Widely-held non-financial companies	682	--	--	384
Banks and insurance companies	--	--	--	--
Trust and mortgage companies	7	--	--	9
Small companies in other industries:				
Companies with taxable incomes of less than \$35,000	420	3	2	114
Other companies	603	15	11	106
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
TOTAL, profit companies	2,240	381	64	862
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
<u>LOSS COMPANIES</u>				
Companies in extractive industries:				
Foreign-owned large private companies	16	5	68	--
Large widely-held companies	196	13	152	24
Other companies	38	3	71	4
Large companies in other industries:				
Foreign-owned private companies	43	--	--	6
Canadian-owned private companies	12	--	--	6
Widely-held non-financial companies	168	--	--	37
Banks and insurance companies	--	--	--	--
Trust and mortgage companies	--	--	--	1
Small companies in other industries				
	156	--	9	50
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
TOTAL, loss companies	629	21	300	128
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
TOTAL FOR ALL COMPANIES	2,869	402	364	990

Notes: As in Table D-7.

Table D-9

CASH DIVIDENDS ACCRUED BY DIFFERENT  
TYPES OF INVESTORS, 1964  
(millions of dollars)

	<u>Foreign Investors</u>	<u>Financial Institutions</u>	<u>Resident Individuals</u>	<u>Total</u>
<u>PROFIT COMPANIES</u>				
Companies in extractive industries:				
Foreign-owned large private companies	21	--	--	21
Large widely-held companies	81	10	37	128
Other companies	34	--	36	70
Large companies in other industries:				
Foreign-owned private companies	128	--	--	128
Canadian-owned private companies	--	--	25	25
Widely-held non-financial companies	267	46	175	488
Banks and insurance companies	23	7	28	58
Trust and mortgage companies	7	2	8	17
Small companies in other industries:				
Companies with taxable incomes of less than \$35,000	9	--	37	46
Other companies	<u>81</u>	<u>--</u>	<u>140</u>	<u>221</u>
TOTAL, profit companies	<u>651</u>	<u>65</u>	<u>486</u>	<u>1,202</u>
<u>LOSS COMPANIES</u>				
Companies in extractive industries:				
Foreign-owned large private companies	5	--	--	5
Large widely-held companies	30	3	13	46
Other companies	4	--	5	9
Large companies in other industries:				
Foreign-owned private companies	8	--	--	8
Canadian-owned private companies	--	--	6	6
Widely-held non-financial companies	5	3	4	12
Banks and insurance companies	6	2	6	14
Trust and mortgage companies	--	--	--	--
Small companies in other industries	<u>--</u>	<u>--</u>	<u>--</u>	<u>--</u>
TOTAL, loss companies	<u>58</u>	<u>8</u>	<u>34</u>	<u>100</u>
TOTAL FOR ALL COMPANIES	709	73	520	1,302

Notes: 1. The figures in this table provide an estimate of the allocation of dividends declared by Canadian companies among different types of investors, exclusive of dividends paid to other Canadian non-financial corporations. The total dividends declared, exclusive of dividends allocable to other Canadian corporations, was first estimated using data on dividends received by such companies. This estimate of dividends net of inter-corporate dividends was then distributed among different types of investors by (a) utilizing estimated ownership ratios for different classes of companies, (b) adjusting the resultant estimates of dividends allocable to foreign investors to make them consistent with independent estimates of aggregate dividend payments to non-resident companies and persons, and (c) allowing for financial institutions and exempt organizations. Dividends allocable to resident individuals were then obtained as a residual.



Notes to Table D-9 (cont'd)

2. Dividends allocable to other Canadian corporations by widely-held companies were initially estimated by assuming them to be equivalent in each group of companies to total dividends received from other Canadian corporations, which were obtained following the procedure described in the notes to Table D-7. Private company dividends were assumed to be allocable exclusively to persons. To make the estimates consistent with aggregate totals, dividends received by private companies have been prorated over all other companies, assuming 60 percent of dividends received by private companies to originate from smaller companies. Canadian dividends received by large widely-held non-financial corporations were assumed to be .771 of total dividends received by such companies, based on data for companies with assets over \$25 million obtained from 1966 Taxation Statistics, op. cit., Table 5. Amounts shown for smaller companies in industries have been adjusted in order to eliminate negative dividend figures for loss companies which would have arisen under this procedure.
3. The share of dividends net intercorporate dividends allocable to resident individuals was assumed to be the same as the corresponding ratios for total dividends paid shown in Table D-3 and D-4 for widely-held companies. For other companies, net dividends were initially allocated between resident and non-resident investors using ownership ratios obtained from other sources as described below.
4. Average ownership of different types of companies (other than widely-held non-financial corporations) by Canadian residents was initially assumed to be as follows: 60 percent for banks, insurance companies, and trust and mortgage companies (48 percent after allowing for holdings of financial institutions and charitable organizations), 60 percent of small companies in the extractive industries and 81 percent for other small companies. The figure of 60 percent for large financial corporations is obtained from the Report of the Royal Commission on Taxation (Ottawa: Queen's Printer, 1966), Volume 6, Appendix A, note 19. The ownership ratio assumed for small corporations in the extractive industries is an arbitrary estimate reflecting the greater foreign investment in the extractive industries. The estimate for smaller companies in other fields is derived from an overall estimate of the allocation to non-residents of the effect of the lower rate of tax on the first \$35,000 of each company's taxable income noted in the Report of the Royal Commission on Taxation, op. cit., Volume 6, Appendix A, note 25, after adjusting for tax reductions arising from the lower initial rate of tax which are allocable to large resident-owned companies and to resident interests in small companies in the extractive industries.
5. The initial estimates of dividends allocable to non-resident investors obtained using the independent estimates of resident ownership shares cited above were adjusted to make the total of such estimates consistent with National Accounts estimates of total dividends paid to non-residents. Aggregate dividends paid to non-residents amounted to \$753 million in 1964, including branch profits of foreign companies (which amounted to \$70 million in that year), based on Dominion Bureau of Statistics, National Accounts: Income and Expenditure, 1967 (Ottawa: Queen's Printer, 1968), Table 50, and on unpublished data provided by DBS. Because the resultant estimate of \$683 million was of dividend payments to non-resident investors in 1964 rather than of non-residents' share in dividends declared, this total was adjusted to put it on an accrual basis consistent with the other dividend figures presented in Tables D-7 and D-9. This adjustment, reflecting the effect of calendar year adjustments and of the change in dividends payable at year end, resulted in an estimate that the non-resident share of total cash dividends declared in 1964 amounted to \$709 million. One-third of the difference between this figure and the original estimate of \$587 million derived from unadjusted ownership ratios was allocated to profitable small companies in non-extractive industries with taxable incomes above \$35,000; the remainder was pro-rated over other non-financial corporations (excluding corporations with taxable income below \$35,000) in proportion to original estimates of dividends allocable to non-residents.



Notes to Table D-9 (cont'd)

6. In the case of all large widely-held companies (including banks, insurance companies, and trust and mortgage loan companies), it has been assumed that 21 percent of amounts allocable to residents are in turn allocable to financial institutions and non-profit organizations, based on data presented in G. R. Conway, "The Supply of and Demand for Canadian Stocks" (multilith, 1967), chapters II, III, and IV. Institutions have been defined for this purpose to include insurance companies, pension funds, exempt organizations and certain other financial intermediaries, but to exclude mutual funds and personal holding companies. With the latter exclusions, "institutions" are assumed to include all resident organizations taxed as separate entities.

Table D-10

PROFITS, TAXES, AND DIVIDENDS ALLOCABLE  
TO RESIDENT INDIVIDUALS FROM DIFFERENT  
TYPES OF COMPANIES, 1964  
(millions of dollars)

	Current year taxable profits	Corporation income tax accrued	Cash dividends paid
<u>PROFIT COMPANIES</u>			
Companies in extractive industries:			
Large widely-held companies	122	60	37
Other companies	24	7	36
Large companies in other industries:			
Canadian-owned private companies	153	77	25
Widely-held non-financial companies	440	221	175
Banks and insurance companies	94	45	28
Trust and mortgage companies	32	14	8
Small companies in other industries:			
Companies with taxable incomes of less than \$35,000	515	108	37
Other companies	<u>987</u>	<u>384</u>	<u>140</u>
TOTAL, profit companies	<u>2,367</u>	<u>916</u>	<u>486</u>
<u>LOSS COMPANIES</u>			
Companies in extractive industries:			
Large widely-held companies	-11	--	13
Other companies	-3	--	5
Large companies in other industries:			
Canadian-owned private companies	-8	--	6
Widely-held non-financial companies	-23	--	4
Banks and insurance companies	-24	--	6
Trust and mortgage companies	-2	--	--
Small companies in other industries	<u>-251</u>	<u>--</u>	<u>--</u>
	<u>-322</u>	<u>--</u>	<u>34</u>
TOTAL FOR ALL COMPANIES	2,045	916	520

Notes: The allocation of amounts to resident individuals is based on data for large non-financial companies presented in Tables D-3 and D-4 above as well as on information obtained from other sources. With the exception of dividends paid to resident individuals (obtained from Table D-9), all items have been either obtained from Tables D-3 and D-4 or calculated by applying estimates of the fractional importance of Canadian ownership to the data presented in Tables D-7 and D-8. In the case of all large widely-held companies (including banks, insurance companies, and trust and mortgage companies), it has been assumed that 21 percent of amounts allocable to Canadian residents are allocable to financial institutions and to non-profit organizations, based on data cited in note 6 to Table D-9. For companies other than large non-financial companies, the share of each variable allocable to Canadian resident individuals has been assumed to be equal to resident individuals' share of net dividends and has been derived from the estimates presented in Table D-9.

Table D-11

ELEMENTS OF EXEMPT INCOME OF DIFFERENT  
TYPES OF COMPANIES ALLOCABLE TO RESIDENT  
INDIVIDUALS, 1964  
(millions of dollars)

	<u>Capital cost allowances</u>	<u>Depletion and exempt income of new mines</u>	<u>Mine development writeoff</u>	<u>Exempt dividend receipts</u>
<u>PROFIT COMPANIES</u>				
Companies in extractive industries:				
Large widely-held companies	86	91	8	55
Other companies	30	3	6	5
Large companies in other industries:				
Canadian-owned private companies	47	--	--	53
Widely-held non-financial	352	--	--	177
Banks and insurance companies	--	--	--	--
Trust and mortgage companies	3	--	--	4
Small companies in other industries:				
Companies with taxable incomes of less than \$35,000	338	2	2	92
Other companies	382	10	7	67
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
TOTAL, profit companies	1,238	106	23	453
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
<u>LOSS COMPANIES</u>				
Companies in extractive industries:				
Large widely-held companies	74	4	43	10
Other companies	23	2	43	2
Large companies in other industries:				
Canadian-owned private companies	13	--	--	6
Widely-held non-financial companies	87	--	--	18
Banks and insurance companies	--	--	--	--
Trust and mortgage companies	--	--	--	--
Small companies in other industries	126	--	7	41
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
TOTAL, loss companies	323	6	93	77
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
TOTAL FOR ALL COMPANIES	1,561	112	116	530

Notes: As in Table D-10.





## APPENDIX E

### 1. Introduction

This appendix describes the extrapolation procedure used to place taxpayers on a 1969 income basis. The procedure was developed by extrapolation tests of the 1964 and 1967 Ontario samples of tax returns to 1967 and 1968 respectively, and comparison of the results with the available taxation statistics and with the 1967 Ontario sample. From these tests a set of adjustment factors were derived for the selective changes of various income source components that occurred during the 1967-1969 extrapolation period.

Description of the growth factors used in the extrapolation and of the special adjustments described are given below.

#### (a) Growth Factors

The projection of revenue yields to 1969 was based on the estimates shown in Table E-1 below of the rates of increase in the number of tax returns and in the different components of income received by each taxpayer.

The rate of increase in the number of individuals filing tax returns is assumed to be the same as the rate of increase in the employed labour force. The rates of increase in income components were derived from actual increases in each component per capita of the labour force between 1967 and 1969. This extrapolation method assumes that all increase in income is allocated to the employed labour force and that increases within the employed labour force are proportionate to present incomes.

#### (b) Adjustment for Low Income Tax Returns

Tests of the extrapolation method described above showed that the method underestimated the number of tax returns in income classes below \$4,000.

Table E-1

PERCENTAGE INCREASES IN NUMBER OF TAX RETURNS AND  
IN COMPONENTS OF INCOME PER TAXPAYER, 1967-1969

	Percentage Change, <u>1967-1969</u>
Increase in Number of Individuals Filing Tax Returns	5.4
Increases in Components of Income for Each Taxpayer:	
Wages and Salaries Income	16.0
Income from Self-employment	8.8
Unincorporated Business Income	5.3
Income from Farming and Fishing	9.6
Corporate Profits	11.8
Interest and Miscellaneous Investment Income	23.3

Notes: The rate of increase in number of individuals filing tax returns is assumed to be the same as the rate of increase in the employed labour force. Statistics for this item were obtained from Dominion Bureau of Statistics, Canadian Statistical Review, April 1970.

Data for 1967 for all other items excluding self-employment income was obtained from Dominion Bureau of Statistics, National Accounts: Summary 1926-1968. 1969 values for these items were from Dominion Bureau of Statistics, National Accounts, Income and Expenditure, 1969. Cat. no. 13-001.

1967 data for income from self-employment was obtained from Department of National Revenue, Taxation Statistics, 1969 edition. The 1969 value for this item was estimated internally.

The calculation of the increase in income components is shown in the example below;

<u>1969 Wages and Salaries</u>	-	<u>1967 Wages and Salaries</u>
<u>1969 Employed Labour Force</u>		<u>1967 Employed Labour Force</u>

  
$$\frac{\text{1969 Wages and Salaries}}{\text{1969 Employed Labour Force}}$$

To compensate for this, the number of tax returns with assessable incomes below \$4,000 were incremented by 4.5% above the increase defined above for all tax returns of 5.4%

The 4.5% figure represents the difference between the change in the number of tax returns and the change in the employed labour force for the period 1967-1969. It is calculated as follows:

Change in employed labour force between 1967 and 1969 =

$$\frac{7780 - 7379}{7379} = .054343$$

Change in the number of tax returns between 1967 and 1969 =

$$\frac{8939 - 8134}{8134} = .098967$$

∴ The number of tax returns has increased .098967 - .054343 = .044624 or 4.5 per cent more than the number in the employed labour force in the 1967-69 period.

Table E-2 provides the data for the calculation and indicates how the change in the number of tax returns is growing faster than the change in the employed labour force. The adjustment assumes that the incremental increase in the number of tax returns shown in Table E-2 is wholly concentrated in the low income classes. This assumption is justified by the following:

- (i) the increase in the fractional importance of students, working wives and other part-time members of the labour force.<sup>1/</sup> Part-time workers file a tax return but will only be counted as a fractional increment to the labour force statistics. An increase in the unemployment rate would have the same effect.
- (ii) the increase in the relative importance of non-working individuals supported by past saving e.g. pensioners and widows.

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<sup>1/</sup> Described in Dominion Bureau of Statistics, Special Labour Force Studies, No. 8 (Ottawa: Queen's Printer) p. 9.

Table E-2

ANNUAL PERCENTAGE CHANGES IN CANADIAN TAX RETURNS  
AND THE EMPLOYED LABOUR FORCE, 1960-1969

<u>Year</u>	<u>Number of Tax Returns (thousands)</u>	<u>Percentage Change in Tax Returns</u>	<u>Employed Labour Force (thousands)</u>	<u>Percentage Change in Employed Labour Force</u>
1960	5,851		5,955	
1961	5,964	1.93	6,049	1.58
1962	6,137	2.90	6,217	2.78
1963	6,351	3.49	6,364	2.36
1964	6,720	5.81	6,609	3.85
1965	7,163	6.59	6,862	3.83
1966	7,733	7.96	7,152	4.23
1967	8,134	5.19	7,379	3.17
1968	8,495	4.44	7,537	2.14
1969			7,780	3.22

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Source: Data on the employed labour force: Canadian Statistical Review, April 1970. op. cit. Tax return data: Department of National Revenue, Taxation Statistics, 1947-1969, op. cit. 1968 figure from unpublished material, Department of National Revenue.



(c) Adjustments for Bond and Bank Interest and Annuity Income Reporting Changes

The extrapolation procedure was modified to adjust for the abnormal growth in bond and bank interest and annuity income due to the 1968 reporting requirement of information slips for interest payments over \$10 rather than the previous \$100.

Table E-3 shows that bond and bank interest increased by 44.7% between 1967 and 1968. The magnitude of change compared to previous years was largely due to the reporting changes. Our analysis assumes that in general, it will be older people who will be predominantly affected by the reporting changes due to the high incidence of elderly people with investment income in low income groups.

Table E-4 shows that the percentage per capita change in bond and bank income between 1967 and 1968 is extremely high in the lower income classes. The magnitude of the change is higher in 1967/1968 than in 1964/1967. From this data it is reasonable to restrict the fractional increase in bond and bank interest from the reporting changes to individuals aged 26 and over. The additional increment in bond and bank interest from the reporting change only is calculated as \$33.43 per person.<sup>2/</sup> Each individual reporting bond and bank interest is designated \$33.43 as a minimum value of the increase resulting from the change. For individuals with changes due to the reporting requirements greater than \$33.43 a maximum value of \$300 is imposed.

Table E-5 shows the percentage change in annuity income between 1960 and 1968. Table E-6 shows that the per capita change in annuity income between 1967 and 1968 is less low

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<sup>2/</sup> Calculated as the estimated 1969 bond and bank interest per capita including the reporting change less the estimated per capita value excluding the reporting change.

Table E-3

PERCENTAGE CHANGE IN PER CAPITA BOND AND  
BANK INTEREST, CANADA, 1960-1968

<u>Year</u>	<u>Value of Bond and Bank Interest</u> (thousands of dollars)	<u>Percentage Change in Bond and Bank Interest</u>	<u>Bond and Bank Interest Per Capita</u> (dollars)	<u>Percentage Change in Per Capita Bond and Bank Interest</u>
1960	283,361	25.1	48.43	21.7
1961	317,784	12.1	53.28	10.0
1962	368,880	16.1	60.11	12.8
1963	399,167	8.2	62.85	4.6
1964	459,805	15.1	68.43	8.9
1965	536,930	16.8	74.96	9.5
1966	604,115	12.5	78.12	4.2
1967	701,081	16.0	86.20	10.3
1968	1,014,654	44.7	119.44	38.6

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Source: Calculated from Department of National Revenue, Taxation Statistics, Individual Income Tax Statistics, 1960-1969 editions, 1968 values from unpublished material, Department of National Revenue.

Table E-4

PERCENTAGE PER CAPITA CHANGE IN BOND AND BANK INTEREST  
RECEIVED BY INCOME CLASS, CANADA, 1964-67; 1967-68

<u>Income Class</u>	<u>Percentage Per Capita Change in Bond and Bank Interest, 1964-1967</u>	<u>Percentage Per Capita Change in Bond and Bank Interest, 1967-1968</u>
Less than \$1,000	11.47	59.06
\$ 1,000 - \$ 1,999	39.99	34.75
2,000 - 2,999	47.19	46.23
3,000 - 3,999	40.63	41.88
4,000 - 4,999	37.59	52.20
5,000 - 5,999	5.23	55.60
6,000 - 7,999	- 7.87	36.94
8,000 - 9,999	-19.30	24.32
10,000 - 14,999	-21.61	14.21
15,000 - 19,999	-14.31	14.96
20,000 - 24,999	- 1.16	13.32
25,000 - 49,999	- 8.69	10.81
50,000 and Over	<u>-10.47</u>	<u>3.56</u>
ALL CLASSES	<u>25.97</u>	<u>38.56</u>

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Source: Taxation Statistics, 1966, 1969 op cit. 1968 values from unpublished material Department of National Revenue.

Table E-5

ANNUAL PERCENTAGE CHANGE IN ANNUITY  
INCOME PER TAX RETURN, 1960-1968

<u>Year</u>	<u>Annuity Income</u> (Thousands of dollars)	<u>Percentage Change in Annuity Income</u>	<u>Annuity Income Per Tax Return</u> (dollars)	<u>Percentage Change in Annuity Income Per Tax Return</u>
1960	14,144	-5.2	2.42	-7.7
1961	14,787	4.5	2.48	2.5
1962	15,136	2.3	2.47	- .5
1963	15,841	4.6	2.49	.8
1964	19,467	22.8	2.90	6.5
1965	21,151	8.7	2.95	1.7
1966	21,253	.5	2.75	-6.8
1967	26,439	24.4	3.25	18.2
1968	32,411	22.5	3.82	17.5

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Source: Taxation Statistics, 1966, 1969 op. cit. 1968 values from unpublished material, Department of National Revenue.



Table E-6

PERCENTAGE CHANGE IN PER CAPITA ANNUITY INCOME  
RECEIVED BY INCOME CLASS, CANADA, 1964-1967; 1967-1968

<u>Income Class</u>	<u>Percentage Change in Annuity Income , 1964-1967</u>	<u>Percentage Per Capita Change in Annuity Income , 1967-1968</u>
Less than \$1,000		
\$ 1,000 - \$ 1,999	-64.61	4.76
1,000 - 1,999	16.86	-32.84
2,000 - 2,999	- 0.64	25.40
3,000 - 3,999	13.06	18.33
4,000 - 4,999	24.60	25.32
5,000 - 5,999	1.47	28.50
6,000 - 7,999	- 6.47	14.62
8,000 - 9,999	-41.36	-15.00
10,000 - 14,999	-37.81	21.49
15,000 - 19,999	-11.75	22.56
20,000 - 24,999	17.65	37.22
25,000 - 49,999	98.07	-12.28
50,000 and Over	<u>32.46</u>	<u>- 8.27</u>
ALL CLASSES	<u>12.07</u>	<u>17.54</u>

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Source: Taxation Statistics, 1966, 1969 op. cit. Values for 1968  
from unpublished material, Department of National Revenue

income related than bond and bank interest changes. The fractional increase in annuity income due to the reporting change is therefore applied to all taxpayers reporting this form of income and is calculated as 12% of annuity income for the period 1967-1969.

(d) Deductions

In what we have discussed up to this point, we have concentrated on the growth of income components. In assessing the impact of alternative extrapolation procedures, we have simulated the effect of alternative approaches to incorporating the rate of growth of deductions allowed in computing taxable income. As for other elements of the tax base, we have increased the aggregate amount of deductions to reflect growth in number of taxpayers. Beyond this, we have analyzed the effect of extrapolating the rates of growth of deductions measured in per capita terms.

The growth of per capita deductions in recent years is shown by the data presented in Tables E-7 and E-8. Based on these data, we have assumed a rate of growth of 8.4 per cent in per capita deductions. Nevertheless, the rate of growth of deductions has exhibited particular volatility, rendering extrapolations in this area particularly subject to errors. We have therefore, made computer runs to test the sensitivity of our revenue estimates to alternative assumptions; the effect of these estimates is to indicate that the result of using an assumed growth rate of 8.4 per cent in per capita deductions is to reduce the size of the revenue increase by \$6 million. As a result, the effect of the relative unreliability of projections in this area is of minor significance in terms of its implications for forecasting the effects of the white paper proposal.

Table E-7

PERCENTAGE CHANGES IN PER CAPITA DEDUCTION COMPONENTS  
FOR CANADA 1967 to 1968

<u>Income Class</u>	<u>C.P.P.</u>	<u>Registered Pension Contributions</u>	<u>Retirement Savings Premiums</u>	<u>Medical Claims</u>	<u>Charitable Donations</u>	<u>Union and Professional Dues</u>	<u>Alimony Paid</u>	<u>Other Deductions</u>	<u>All Components</u>	<u>All Components Except C.P.P.</u>
Under \$ 1,000	-2.56	-14.58	100.00	61.33	150.00	34.09	100.0	56.02	39.06	47.84
1,000 - 1,999	-2.50	-21.43	40.91	19.39	3.01	-0.38	-46.6	14.72	8.29	11.06
2,000 - 2,999	-0.46	-13.99	4.17	5.84	2.72	-0.17	-26.4	24.83	5.01	7.42
3,000 - 3,999	-0.68	-12.29	- 3.23	6.64	0.74	-1.51	-20.11	10.00	0.07	0.45
4,000 - 4,999	-1.16	-12.64	11.73	3.42	- 6.74	-5.24	-14.00	- 0.89	-3.66	- 4.74
5,000 - 5,999	1.25	- 9.94	-16.30	3.49	- 7.91	-2.84	-34.45	-32.83	-9.62	-13.14
6,000 - 7,999	1.65	0.90	15.93	0.92	- 7.24	10.15	-18.47	- 7.30	-0.41	- 0.93
8,000 - 9,999	1.22	1.36	- 6.90	-6.87	-16.26	16.19	-17.91	- 7.12	-2.46	- 3.11
10,000 - 14,999	0.59	1.44	- 1.91	-3.80	-16.64	16.67	7.12	- 1.68	-2.02	- 2.31
15,000 - 19,999	-1.43	9.63	6.74	2.94	-12.74	22.15	5.37	10.92	2.24	2.50
20,000 - 24,999	-1.98	10.73	- 1.83	0.59	-10.62	34.16	15.85	- 7.64	-1.44	- 1.41
25,000 - 49,999	-0.28	2.64	0.72	-6.88	-12.39	26.00	11.40	6.94	-0.97	- 1.00
50,000 and Over	4.27	- 4.25	5.70	-4.35	-10.64	20.91	13.81	-14.70	-6.70	- 6.89
ALL CLASSES	2.80	8.02	14.92	5.70	- 1.04	10.03	6.97	5.80	5.73	6.42

Source: Derived from Taxation Statistics, 1966, 1969, op. cit. Values for 1968 from unpublished material from Department of National Revenue.

Table E-8

PERCENTAGE CHANGES IN PER CAPITA DEDUCTION COMPONENTS, CANADA, 1964 TO 1967

Income Class	C.P.P.	Registered Pension Contributions	Retirement Savings Premiums	Medical Claims	Charitable Donations	Union and Professional Dues	Alimony Paid	Other Deductions	All Components	All Components except C.P.P.
Under \$1,000	-	-15.05	166.67	-15.73	-66.70	780.00	-54.06	18.29	-	9.79
\$ 1,000 - \$ 1,999	-	-35.63	4.76	2.58	-60.62	482.22	36.36	65.28	-	18.79
2,000 - 2,999	-	-50.46	24.14	20.37	-61.15	304.03	- 3.64	80.76	-	- 7.63
3,000 - 3,999	-	-51.41	28.10	1.00	-66.46	232.19	-16.36	44.56	-	-27.28
4,000 - 4,999	-	-47.02	34.06	- 6.50	-65.78	160.00	3.34	81.41	-	-27.16
5,000 - 5,999	-	-34.67	49.18	- 9.76	-61.92	167.99	17.43	200.69	-	-10.16
6,000 - 7,999	-	-25.75	14.87	- 6.81	-56.05	168.28	- 4.28	69.18	-	-11.95
8,000 - 9,999	-	-22.71	16.61	1.16	-49.28	140.43	-19.73	123.73	-	- 4.64
10,000 - 14,999	-	-10.53	11.57	-10.57	-40.01	135.97	-21.49	171.32	-	5.00
15,000 - 19,999	-	2.83	13.28	-14.09	-28.24	92.02	0.78	93.18	-	8.16
20,000 - 24,999	-	2.00	9.70	-18.25	-26.32	25.82	0.20	101.47	-	8.48
25,000 - 49,999	-	- 5.38	12.49	-10.26	-17.80	35.62	23.55	- 8.48	-	- 4.56
50,000 and Over	-	- 8.46	25.89	- 6.65	-23.99	-2.44	12.04	-46.03	-	-23.61
ALL CLASSES	-	-11.14	70.08	8.04	-39.88	219.48	27.63	122.50	-	11.10

Source: Derived from Taxation Statistics, 1966, 1969, op. cit. 1968 values from unpublished material from Department of National Revenue.



HJ                    Analysis of the federal  
4661                tax reform proposals.  
.057  
no.1



Ontario